



National

BUILDERS' HARDWARE

CATALOG

24

NATIONAL
MANUFACTURING
COMPANY

STERLING
ILLINOIS



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National
BUILDERS'
HARDWARE

CATALOG No. 24



NATIONAL MANUFACTURING COMPANY

* * STERLING * ILLINOIS * *



As viewed from the city



As viewed from Rock River

BUILDERS' HARDWARE

Method of Distribution

Since its organization in 1901, it has been the policy of this Company to sell its product through the retail dealers. By this sales method we have been able to give our customers a better quality of goods, prompt shipment of goods as ordered without substitution, and cooperation in advertising and selling them.

The size and variety of our stock enable the dealer to make up an order of a size sufficient to weigh 200 pounds or more, and thus secure the benefit of our liberal freight allowance.

The original and convenient methods used in packing our goods, as described on page 5 of this catalog, bring the goods to you in good condition, and save time for both clerks and customers.

Quality of Goods

In the construction of our goods only the best grades of material are used. Our machines are of the latest design. Our workmen are expert. With our careful method of inspection a perfect product is assured.

New Goods

Since the publication of our last catalog, we have added to the National line the following new goods:

| | |
|----------------------------|---|
| No. 834 Barrel Bolts | No. 460 Semi-Concealed Hinge |
| Strap and Bolt Hinges | No. 460A ¹⁵ / ₃₂ Semi-Concealed Hinge |
| No. 706 Cabinet Door Latch | No. 460A ³ / ₄ Semi-Concealed Hinge |
| No. 707 Cabinet Door Latch | No. 460B ³ / ₈ Semi-Concealed Hinge |
| No. 760R Cabinet Door Set | No. 460C ¹ / ₂ Semi-Concealed Hinge |
| No. 760S Cabinet Door Set | No. 460Z ³ / ₄ Semi-Concealed Hinge |
| No. 770R Cabinet Door Set | No. 460R Ornamental Hinge |
| No. 770S Cabinet Door Set | No. 460S Ornamental Hinge |
| No. 106 Door Pull | No. 471 Semi-Concealed Hinge |
| No. 107 Drawer Pull | |

Service

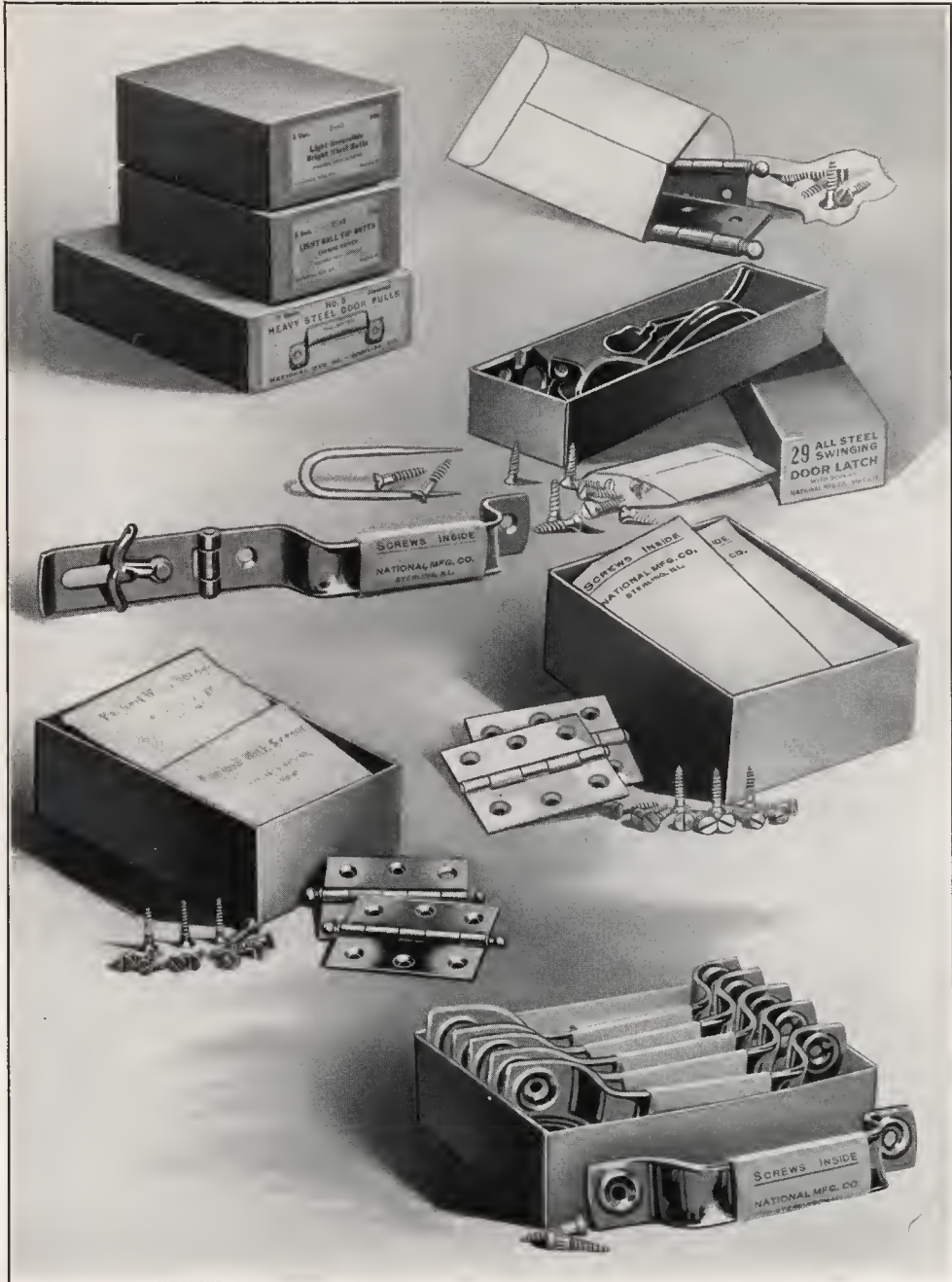
A complete stock of all the goods illustrated herein is carried at all times, and orders will be filled promptly. *It is our policy to ship all mail orders the same day they are received.*

Prices and Terms

A complete net price-list applying to this catalog will be gladly mailed upon request. Inquiries for further detailed information concerning our goods will be cheerfully responded to.

February 1, 1939

Method of Packing with Screws



(See opposite page.)

Time-Saving Methods of Packing

Every hardware dealer who is interested in keeping down the expense of handling goods, and every one of his clerks, will appreciate National methods of packing goods.

All the smaller sizes of Butts and Hinges are packed one pair in an envelope with screws, one dozen pairs in a box. The larger sizes are packed one pair in a box, with screws. This applies not only to plated finishes, but also to Japan and Bright Steel. All cartons containing one-half and one dozen pairs of Butts or Hinges are sealed with gummed tape. Cartons containing one pair of Butts and Hinges are not taped, but are tied six pairs in a bundle. A glance will tell whether a carton or package has been opened or not. This method saves the time required to count screws, the loss from careless counting and the dealer's and the customer's time. Time in invoicing also is saved, as broken packages can be "spotted" at a glance.

Sherardizing

In this process of rust-proofing, the parts—after being thoroughly cleansed—are put into a large steel drum, with zinc dust. Then the drum is securely closed, put into an oven, and heated to about 700 degrees. When the parts are heated to this temperature, the molecules of the steel become active and the zinc dust penetrates into the skin of the steel and forms a zinc-iron alloy or, in other words, becomes part of it.

Sherardizing can not peel off or crack and will last for years. It affords an excellent surface for painting.

The goods we furnish in this finish are so indicated in the following pages.

Hot Galvanizing

Many of the items in the line, as indicated in the following pages, are also furnished in Hot Galvanized finish.

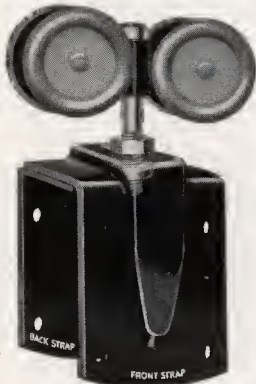
Cadmium Plating

Many items in the line can be furnished in this finish. Can also be used as a base for other plated finishes.

No. 42 Trolley Door Hanger



Back view No. 42 Hanger



Front view No. 42 Hanger

For use with No. 41 Trolley Rail.

For doors weighing from 400 to 1000 pounds.

Wheels are pressed steel, 3 inches in diameter, and have large roller bearings. Drop strap is heavy-gauge steel and is adjustable for doors up to 3 inches thick. Both lateral and vertical adjustments.

Also used for heavy accordion doors. (See page 21.)

Finish: Japanned or Hot Galvanized.

Packed one pair in a box with bolts for attaching.

Weight, per dozen pairs, 158½ pounds.

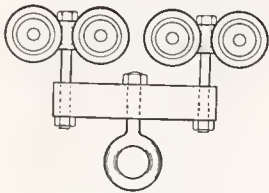
BUILDERS' HARDWARE

No. 42½ Trolley
With Eye Bolt

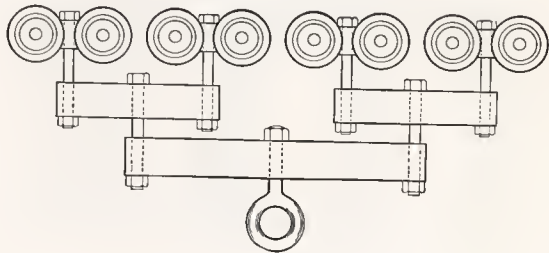


For use with No. 41 Trolley Rail as an overhead carrier.
Packed with one pair end-caps.

Weight, each, 3¾ pounds.



No. 42½A



No. 42½B

Special Trolleys for heavy loads can be furnished as illustrated.
Also other combinations may be had. Prices on request.

No. 41 Trolley Rail



Full-size sectional view No. 41 Trolley Rail

For use with No. 42 Trolley Door Hanger. Made of heavy-gauge steel, carefully formed to give an even, perfect tread for the hanger wheels.

Brackets for this rail are: F-41, G-41, H-41, HS-41, J-41, K-41 and KS-41 (see page 9).

No. 41-14 for doors weighing up to 600 pounds. Brackets spaced 24 inches apart.

No. 41-12 for doors weighing up to 1000 pounds. For doors up to 800 pounds, space brackets 18 inches apart; up to 1000 pounds, 12 inches apart.

Finish: Japanned or Hot Galvanized.

Made in 6-, 8- and 10-foot lengths.

Weight, per hundred feet, No. 41-14, 295 pounds; No. 41-12, 425 pounds.

Brackets for No. 41 Trolley Rail



F-41 Bracket
Weight with $\frac{5}{8}$ x 3-inch
lag-screws,
 $2\frac{1}{2}$ pounds each.



G-41 Joint Splice Bracket
Weight with $\frac{5}{8}$ x 3-inch
lag-screws,
 $2\frac{1}{2}$ pounds each.

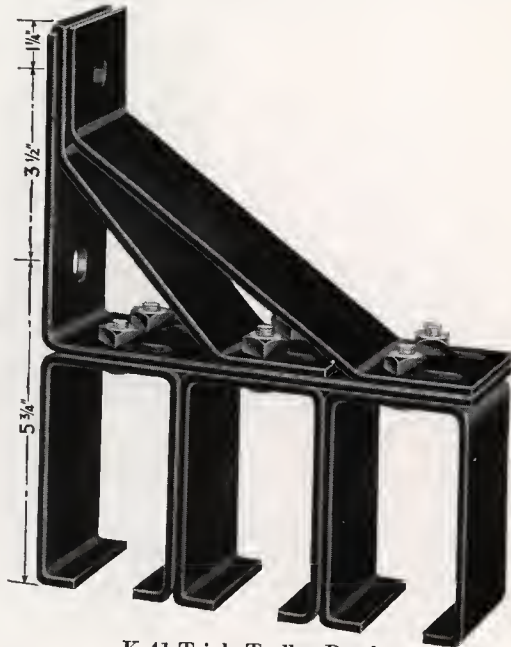


J-41 Ceiling Bracket
Weight with $\frac{5}{8}$ x 3-inch
lag-screws,
 $3\frac{3}{4}$ pounds each.



H-41 Double Trolley Bracket
HS-41—Same as above with
set-screws

Weight with $\frac{5}{8}$ x 3-inch
lag-screws, 7 pounds each.



K-41 Triple Trolley Bracket
KS-41—Same as above with
set-screws

Weight with $\frac{5}{8}$ x 3-inch
lag-screws, $10\frac{3}{4}$ pounds each.

No. 50B Trolley Door Hanger Set (Patented)



No. 50 Trolley Hanger

For use with No. 51 Trolley Rail.

The wheels are of pressed steel, $2\frac{1}{8}$ inches in diameter, and have large roller bearings.

The drop strap is made of heavy-gauge steel, very deeply embossed, making it extremely rigid.

The connecting bolt is of automobile steel, having a fifty per cent greater tensile strength than common bolt stock.

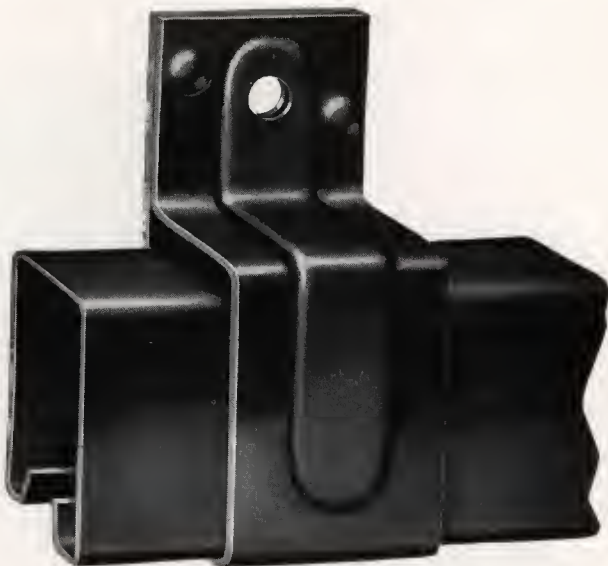
No. 50B Trolley Door Hanger Set

(Patented)

The connecting bolt is so attached to the truck as to provide an equalizing device so that equal weight is carried on each of the four wheels.

The hanger has both lateral and vertical adjustments, which are unusually simple to operate, with wrench which is furnished with hanger.

All hangers are adjusted for two-inch doors when assembled.



F-51 Bracket



G-51 Joint Splice Bracket

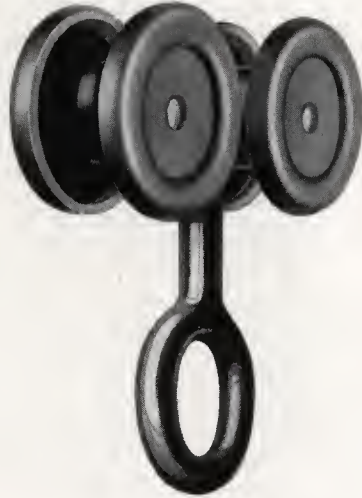
Finish: Japanned or Hot Galvanized.

Packed one pair in a box with bolts for attaching, two end caps, two F-51 Brackets and one G-51 Joint Splice Bracket, with lag-screws. Packed one dozen sets in a case. Weight, per dozen sets, 110 pounds.

No. 50 Hangers are packed one pair in a box with two end caps and bolts for attaching. One dozen pairs in a case. Weight, per dozen pairs, 78 pounds.

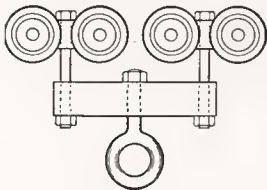
No. 50 $\frac{1}{2}$ Trolley

With Eye Bolt

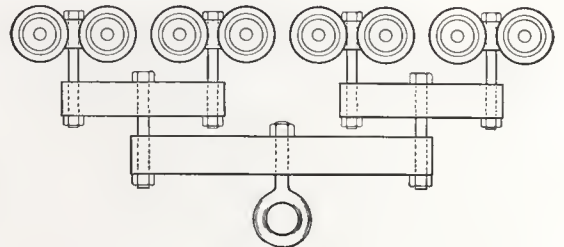


For use with No. 51 Trolley Rail as an overhead carrier.
Packed with one pair end-caps.

Weight, each, 1 $\frac{3}{4}$ pounds.



No. 50 $\frac{1}{2}$ A



No. 50 $\frac{1}{2}$ B

Special Trolleys for heavy loads can be furnished as illustrated.

Also other combinations may be had. Prices on request.

No. 52 Trolley Door Hanger

Flexible and Adjustable
(Patented)

Incorporates all the splendid features of the No. 50 Trolley Hanger. The same wheels, truck, and large bearings. In addition, it has a new and exclusive type of flexible hinge-joint. When the door is hanging in its normal position, the hanger is absolutely rigid; should anything bump against the door, the flexible joint allows it to swing out. Vertical and lateral adjustments.

For use with No. 51 Trolley Rail.

Finish: Japanned or Hot Galvanized.

Packed one pair in a box with two end-caps and bolts for attaching.

One dozen pairs in a case.

Weight, per dozen pairs, 80 pounds.

No. 52B packed one pair in a box with bolts for attaching, two end-caps, two F-51 Brackets and one G-51 Joint Splice Bracket, with lag-screws.

One dozen pairs in a case. Weight, per dozen pairs, 112 pounds.



No. 52 Trolley Hanger

No. 54B Trolley Door Hanger Set



No. 54 Trolley Hanger

For use with No. 51 Trolley Rail.

The Hanger has the same wheels, truck and large bearings as the No. 50 Trolley Hanger. The double drop strap is slightly embossed for additional strength.

Vertical and lateral adjustments.

Finish: Japanned or Hot Galvanized.

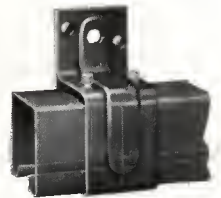
Packed one pair in a box with two F-51 brackets and one G-51 joint splice bracket, two end-caps and sufficient $1\frac{1}{2} \times 14$ screws for attaching Hangers to door.



F-51 Bracket

Packed one dozen pairs in a case.

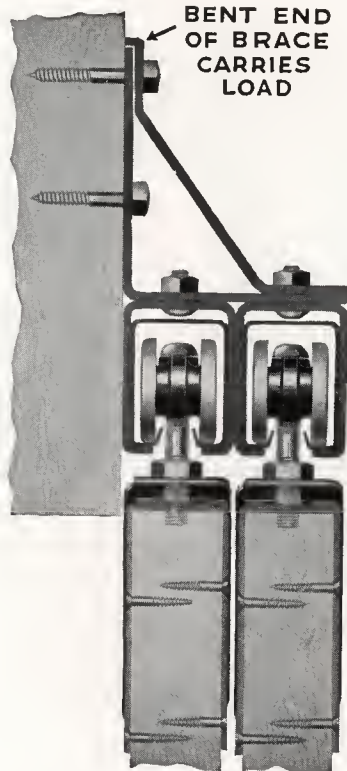
Weight, per dozen pairs, 118 pounds.



G-51 Joint Splice Bracket
(Patented)

No. 54 Trolley Door Hanger

For doors to pass each other



Specially designed for use on sliding doors that pass each other, using No. 51 Trolley Rail.

The Hanger has roller bearings, vertical and lateral adjustments and double drop strap, slightly embossed for additional strength.

Doors can be hung close together, as screw heads are flush with drop strap.

Finish: Japanned or Hot Galvanized.

Packed one pair in a box with screws for attaching and two end-caps.

Weight, per dozen pairs, 81 pounds.

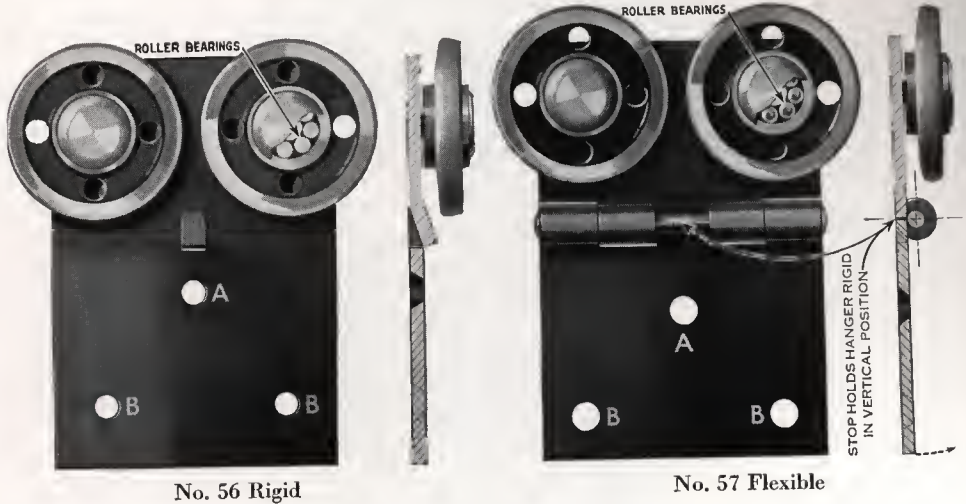


No. 54 Trolley Hanger

Trolley Door Hangers

(Patented)

For very light doors to pass each other



No. 56 Rigid

No. 57 Flexible

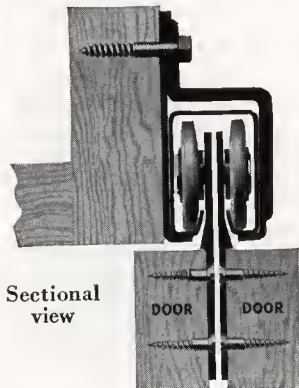
First, drive center screw "A" while door is on ground. Hang door in rail, permitting all wheels to settle on rail, insuring equal distribution of load to each wheel. Then drive screws "B."

No. 56 Rigid

Specially designed for use with No. 51 Trolley Rail (see page 18) and No. 51½ Trolley Rail (see page 17) and light-weight doors.

No. 57 Flexible

Construction same as No. 56 Hanger, except it has flexible hinge joint with stop to hold hanger rigid in vertical position.



Sectional
view

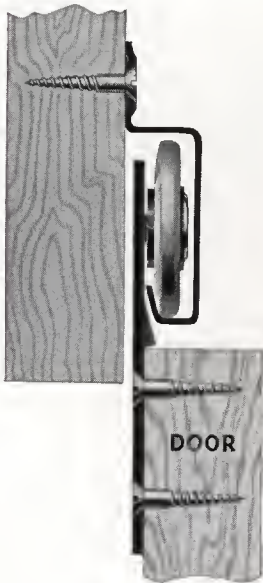
Finish: Japanned or Hot Galvanized.

Packed one pair in a box with screws for attaching. Two dozen pairs in a case.

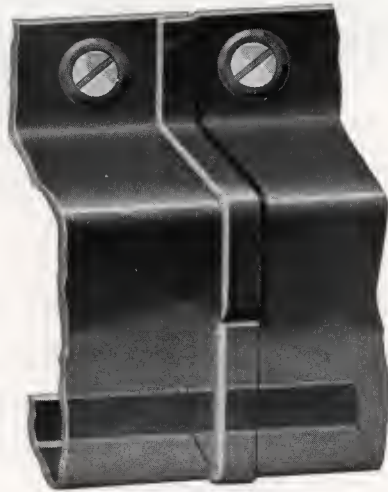
No. 56—Weight, per dozen pairs, 30 pounds.

No. 57—Weight, per dozen pairs, 35 pounds.

No. 51½ Single Trolley Rail



Sectional view showing
No. 56 Trolley Hanger



View showing
dovetailed joint

A single Trolley Rail for light-weight doors. For use with Nos. 56 and 57 Trolley Hangers. (See page 16.)

Made of 16-gauge steel with screw-holes for attaching one foot apart. No brackets required.

End caps are packed with the rail. Screws for attaching the rail are not furnished.

Made in 6-, 8- and 10-foot lengths only. Eight pieces of a length in a bundle.

Weight, per hundred feet, 118 pounds.

No. 51 Trolley Rail



For use with Nos. 50, 52 and 54 Trolley Garage and Barn Door Hanger Scts.

Made of heavy-gauge steel. Carefully formed to give an even, perfect tread for the hanger wheels.

Made in 4-, 6-, 7-, 8-, 9- and 10-foot lengths. Packed four pieces of a length in a bundle.



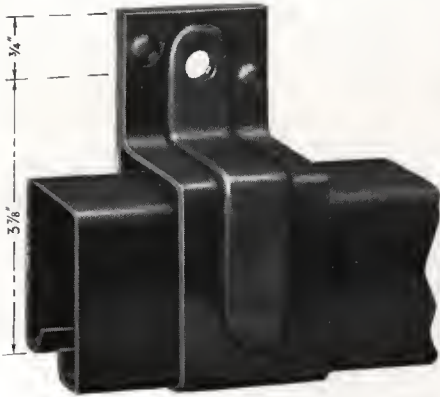
Sectional view of Rail, full size

No. 51-16 for doors up to 300 pounds. Space brackets 24 inches apart. No. 51-14 for doors up to 400 pounds. Space brackets 18 inches apart.

Finish: Japanned or Hot Galvanized.

Weight, per hundred feet, No. 51-16, 172 pounds; No. 51-14, 205 pounds.

No. 51 Trolley Rail Brackets



F-51 Bracket

No. F-51 Brackets are used to hang the rail, being placed two feet apart.

Finish: Japanned or Hot Galvanized.

Packed twenty-five in a box, with $\frac{3}{8}$ x 2-inch lag-screws.

Weight, 21 pounds.

This joint splice bracket provides a positive method of firmly fastening the No. 51 rail sections into one continuous length.

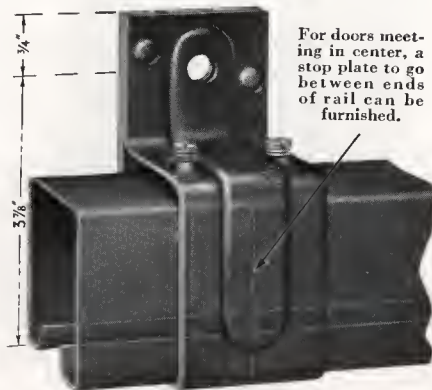
On each side of the embossing, at the top of the bracket, there is a locking screw which enters slotted holes in end of rail. The screws are tapered and when inserted will press the rail firmly against bottom of the bracket, pulling the two lengths of rail together and holding them securely in position.

These brackets can also be used with rail not provided with holes for screws. The points of the screws are sharp and will make a sufficient indentation to hold the sections securely.

Finish: Japanned or Hot Galvanized.

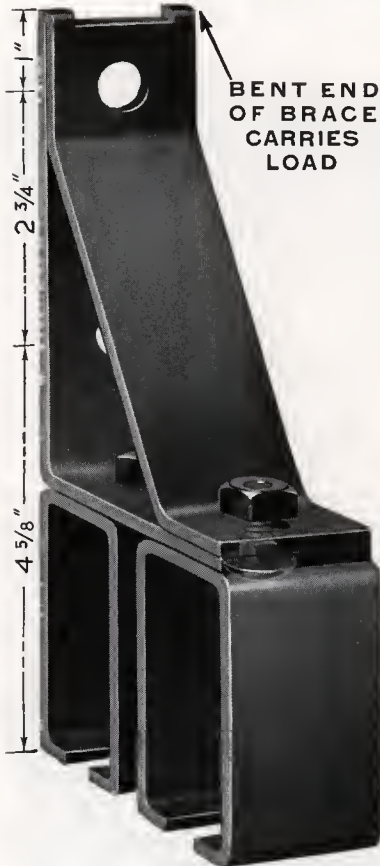
Packed twenty-five in a box, with $\frac{3}{8}$ x 2-inch lag-screws.

Weight, 22 pounds.



G-51 Joint Splice Bracket
(Patented)

No. 51 Trolley Rail Brackets



H-51 Double Trolley Bracket

For use on construction where doors are hung to pass each other, using No. 51 Trolley Rail.

The brackets for the rail are attached to the extension arm with carriage bolts which hold them firmly in position. They can be adjusted either in or out by simply loosening the nut. The bolts cannot turn in the bracket arm, as they have a square shoulder.

As two runs of rail side by side must have very strong support, the outside extension brace is made so the bend comes very close to the nut in the outside bracket. This construction gives the utmost strength.

Finish: Japanned or Hot Galvanized.

No. H-51—Packed 10 in a box, with two $\frac{1}{2}$ x2-inch lag-screws.

Weight, 3 pounds each.

No. HS-51—Has set-screws for joining two sections of rail.

No. K-51—A triplicate bracket for three parallel runs of rail.

Weight, with lag-screws, $4\frac{1}{2}$ pounds each.

No. KS-51—Triplicate joint splice bracket.

Weight, with lag-screws, $4\frac{1}{2}$ pounds each.

Ceiling Brackets

No. J-51—For use on construction where rail is attached to ceiling. Cross bar can be turned to use in two positions as illustrated.

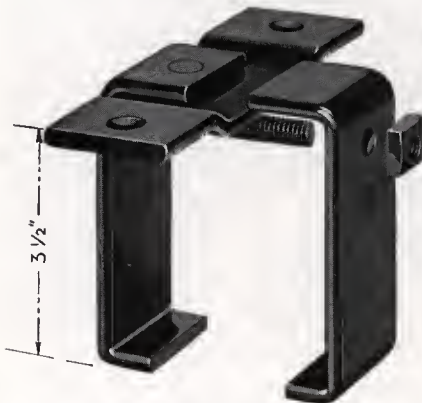
No. JC-51—With split bolt.

No. JS-51—With set-screws for joining two sections of rail.

Finish: Japanned or Hot Galvanized.

Furnished with $\frac{3}{8}$ x2-inch lag-screws.

Weight, $1\frac{1}{4}$ pounds each.



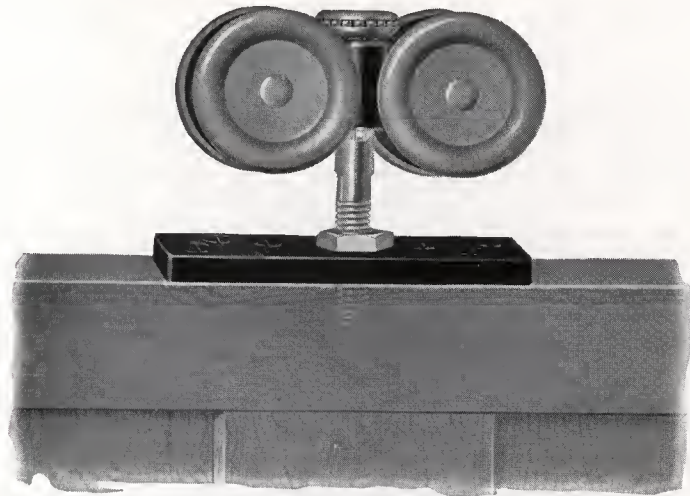
JC-51 Ceiling Bracket



J-51 Ceiling Bracket

BUILDERS' HARDWARE

No. 47 Adjustable Accordion Door Hanger



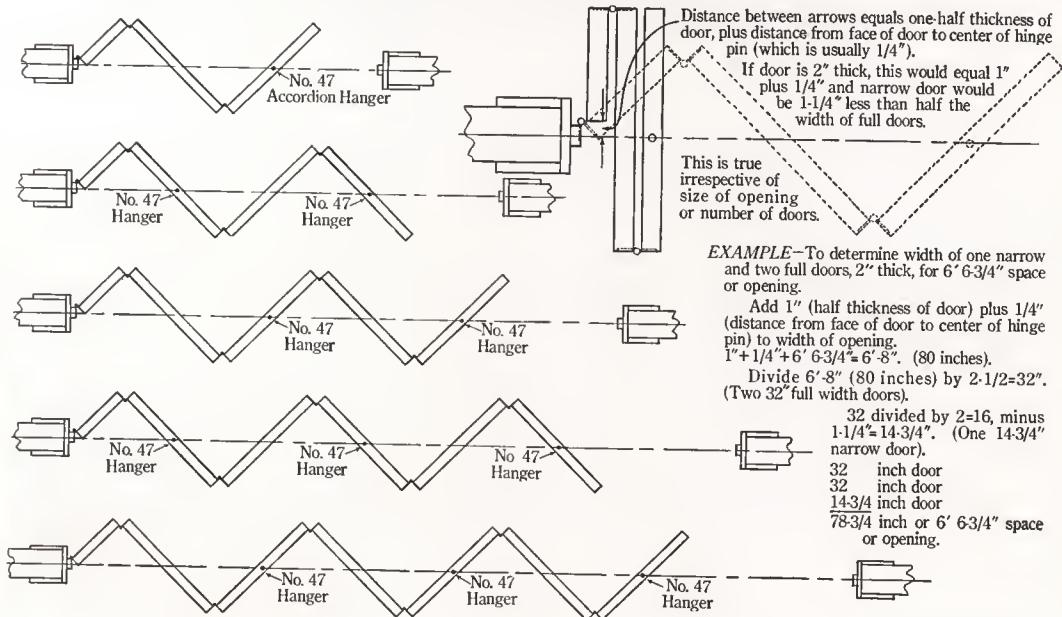
The swivel of hanger is ball-bearing. The same truck is used as with our Trolley Garage and Barn Door Hangers. Used extensively in churches, schools, auditoriums, etc., where a number of doors in an opening are hung in series. Attached to top of door with a heavy flat plate, $1\frac{3}{8} \times 5$ inches, using six 2 x 10 screws. Plates for thinner doors can be furnished.

The No. 51 Trolley Rail is used in connection with this hanger. The rail is attached directly to the header, holes being drilled in the rail for the screws, when so specified.

The No. 42 Trolley Hanger, page 6, is used for heavy accordion doors.

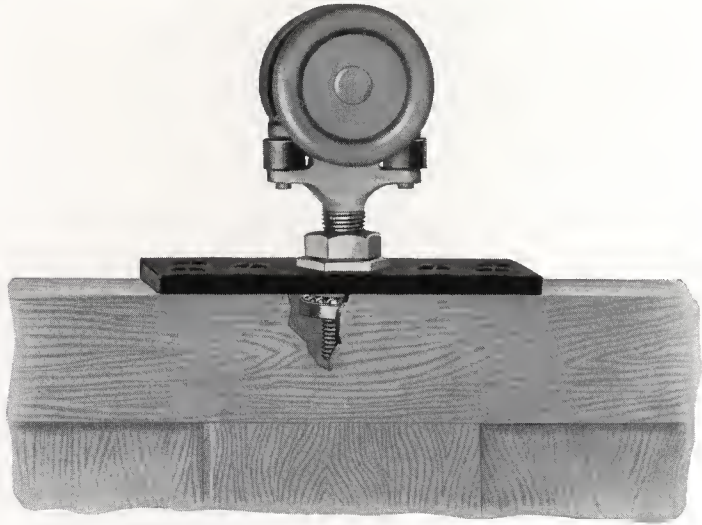
A special wrench is furnished for adjusting the hanger. Packed two in a box with screws.

Weight, two only, 5 pounds.



No. 47½
Adjustable Accordion Door Hanger

Single Wheel



The construction is the same as the No. 47 Accordion Door Hanger (see page 21), except that single truck is used and two small rollers to reduce the friction on rail.

For use with No. 51 Trolley Rail, when a hanger is used on each door in an opening.

Packed two in a box, with screws and a special wrench.

Weight, two only, 3¼ pounds.

No. 67
Storm-Proof Door Hanger



This Hanger is made especially for heavy doors weighing up to 700 pounds.

It is a double-truck Hanger with an equalizing-pin in each truck. A heavy steel plate is furnished which is attached to the door. The suspension bolt passes through the door and plate and through the drop plate of the Hanger. A special washer on the suspension bolt prevents the Hanger from binding against the door plate and permits a free movement of the door and Hanger.

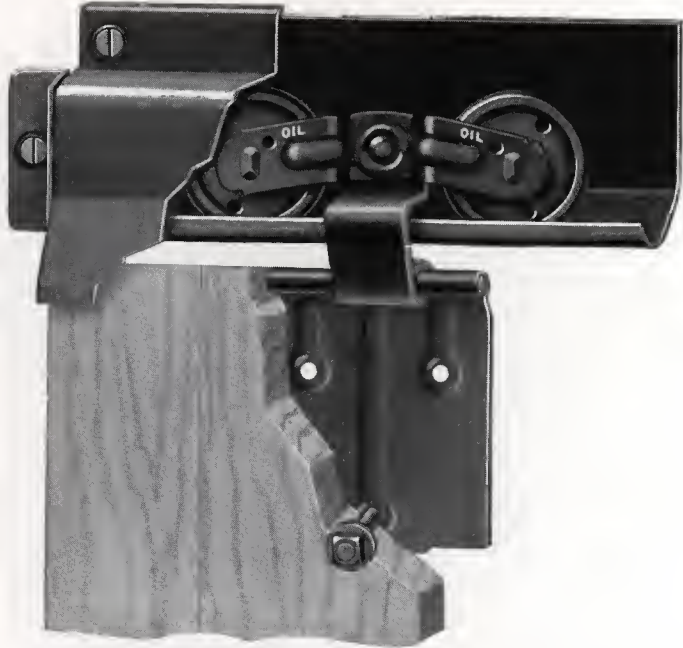
The weight of the door is distributed over a longer section of rail and greater carrying capacity is the result.

An extra heavy Storm-Proof Rail is furnished for use with these Hangers.

Packed one pair in a box, with all necessary bolts for the Hangers, lag-screws, and end-caps for the rail.

Weight, per pair, 16 pounds.

No. 55 Storm-Proof Junior Door Hanger



The No. 55 Storm-Proof Junior Hanger is designed for use on small barn doors, inside stable doors, shed doors and garage doors, where the heavy standard type of barn door equipment is not necessary.

All the exclusive features used in the "Big 4" and Nos. 66, 77 and 88 Storm-Proof Hangers are found in No. 55 Storm-Proof Junior.

Each hanger has two wheels, in tandem, with anti-friction-steel roller bearings.

No great care is required in attaching the hangers to the doors as the equalizing-pin in the center of the wheel-truck insures even distribution of the load to each wheel.

It is both a rigid and a flexible hanger. When the door hangs straight down, there is no vibration in the hanger, but the hinged joint allows it to swing out should anything bump against the door.

Oil holes in the cover and truck straps are provided.

It is fastened to but one side of the door, which makes it much easier to attach than the clevis-style hanger.

Finish: Japanned or Hot Galvanized.

These hangers are packed one pair in a box, with bolts for attaching the hangers to the doors, also screws for hanging the rail, and end caps.

Packed one dozen pairs in a case.

Weight, per dozen pairs, 54 pounds.

Storm-Proof Junior Rail

In principle and design, the No. 55 Storm-Proof Junior Rail is identical with Storm-Proof Rail. The only difference is in the size and weight.

It is storm-proof and bird-proof; it shields the top of the door from snow, rain and wind. As compared to other Junior type barn door rails this is a distinctive feature in the National No. 55 Junior.

It fits closely against the building.

No brackets are required, as the rail itself forms a continuous bracket.

The rail is exceedingly strong and will support all the weight the hangers will carry.

The rail joints are dovetailed, forming the sections in practically a one-piece rail. No splice covers necessary.

The cover can be removed at any time for painting inside of rail.

The smaller holes at each end of the tread-part are for use in nailing the rail into position until the screws can be inserted, as clearly illustrated in directions packed with each pair of hangers. A great convenience.

Two pieces of a length, both cover and rail, are packed in a bundle. The parts nest compactly together, and consequently occupy less than one-half the space in the store room of any other enclosed rail.

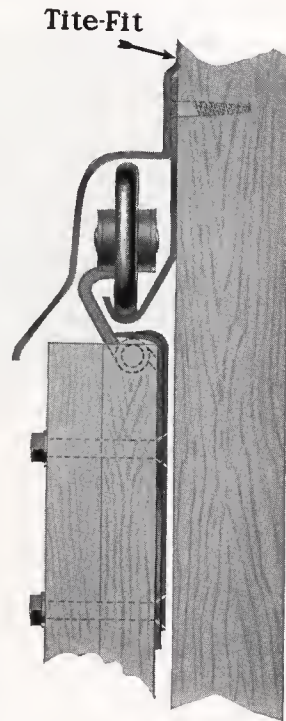
The holes for screws are one foot apart.

1¼ x 14 screws are furnished to secure rail to building.

Finish: Japanned or Hot Galvanized.

Storm-Proof Junior Rail is packed for shipment in the same manner as is Storm-Proof Rail. For method of packing, see page 31.

Made in 4-, 6-, 8- and 10-foot lengths.
Weight, per hundred feet, 172 pounds.



Sectional view

No. 66 Rigid Storm-Proof Door Hanger (Patented)



This Hanger is very simple in construction, is made of heavy-gauge steel and has great carrying capacity.

Each Hanger has two wheels, in tandem, with anti-friction-steel roller bearings.

That part of the wheel which rolls on the rail is the same diameter in the Storm-Proof Hangers as in the "Big 4" Hangers.

No great care is required to attach Hangers to the door, as the equalizing-pin in the center of the wheel-truck insures even distribution of load to each wheel.

The same careful process of manufacture is used as with the "Big 4" Hangers, insuring a light-running bearing free from japan. Oil-holes for the bearings are also provided.

Finish: Japanned or Hot Galvanized.

These Hangers are packed one pair in a box, with bolts for attaching the Hangers to the door; also lag-screws and end-stops for the rail. Each box contains also a set of illustrated directions for attaching the Hangers and rail. A socket wrench for lag-screws and bolts is packed with every two pairs of Hangers.

Packed one dozen pairs in a case. Weight, per dozen pairs, 88 pounds.

No. 77 Flexible Storm-Proof Door Hanger
(Patented)



The No. 77 Storm-Proof Hanger incorporates all the excellent features of the No. 66 Storm-Proof Hanger, and in addition it has the flexible hinge-joint. When the door hangs straight down, there is no vibration in the Hanger, but the hinged joint allows it to swing out should anything bump against the door. This feature places this Hanger in a class with the "Big 4" and makes it popular with the trade.

The connecting-strap and drop-strap are heavily embossed, increasing the already great strength of the Hanger. The method of attaching connecting-strap to truck permits the free action of the equalizing-pin, and holds the truck firmly in an upright position. The steel used in drop-strap and connecting-strap is $\frac{3}{16}$ inch thick.

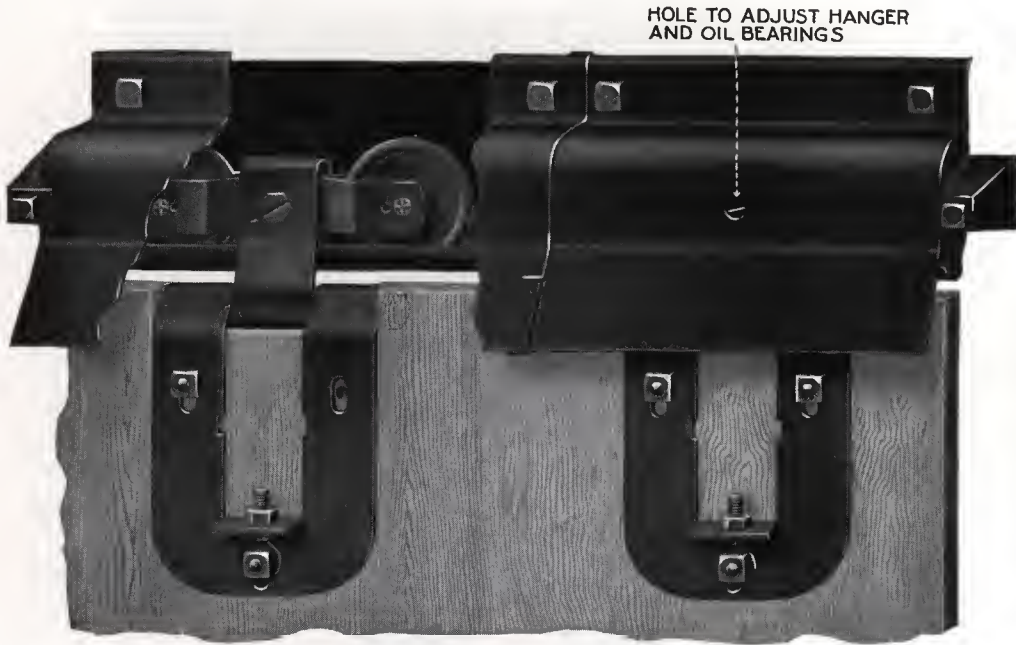
Oil-holes for bearings are also provided.

Finish: Japanned or Hot Galvanized.

Packed one pair in a box, with bolts for attaching the Hangers to door; also lag-screws and end-stops for the rail. Each box contains also a set of illustrated directions for attaching the Hangers and rail. A socket wrench for lag-screws and bolts is packed with every two pairs of Hangers.

Packed one dozen pairs in a case. Weight, per dozen pairs, 93 pounds.

No. 88 Adjustable Storm-Proof Door Hanger



The Adjustable Storm-Proof Hanger illustrated is used in connection with Storm-Proof Rail. It has two adjustment features, vertical and lateral. The adjustment construction is very simple and easily operated.

Another distinctive feature of this construction is that the door is carried closer to the rail than with any other adjustable hanger we know of.

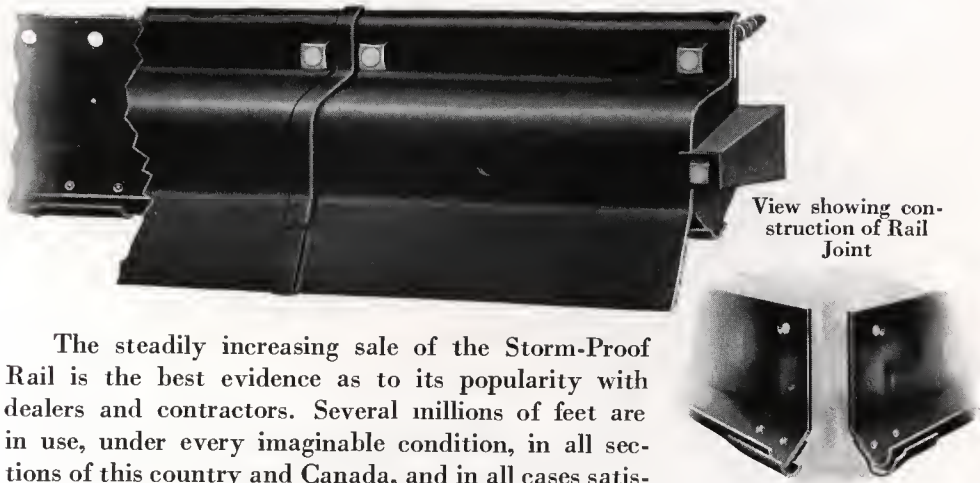
Finish: Japanned or Hot Galvanized.

The Hangers are packed one pair in a box, with bolts for attaching the Hangers to the door; also lag-screws and end-caps for the rail. Each box contains also a set of illustrated directions for attaching the Hangers and rail. A socket wrench for lag-screws and bolts is packed with every two pairs of Hangers.

Packed one dozen pairs in a case.
Weight, per dozen pairs, 112 pounds.

Storm-Proof Rail

(Patented)



View showing construction of Rail Joint

The steadily increasing sale of the Storm-Proof Rail is the best evidence as to its popularity with dealers and contractors. Several millions of feet are in use, under every imaginable condition, in all sections of this country and Canada, and in all cases satisfactory service is being rendered.

This rail is for use with either the No. 66, No. 77 or No. 88 Storm-Proof Hangers.

It fits closely against the building.

It is storm-proof and bird-proof.

No brackets are required, as the rail itself forms a continuous bracket.

The rail is exceedingly strong, and will support all the weight the hangers will carry.

The rail joints are dovetailed, forming the sections in practically a one-piece rail. No splice covers necessary.

The cover can be removed at any time for painting inside of rail.

The smaller holes shown in the illustration are for use in nailing the rail into position until the lag-screws can be inserted, as clearly illustrated in directions packed with each pair of hangers.

The holes for lag-screws are 2 feet apart.

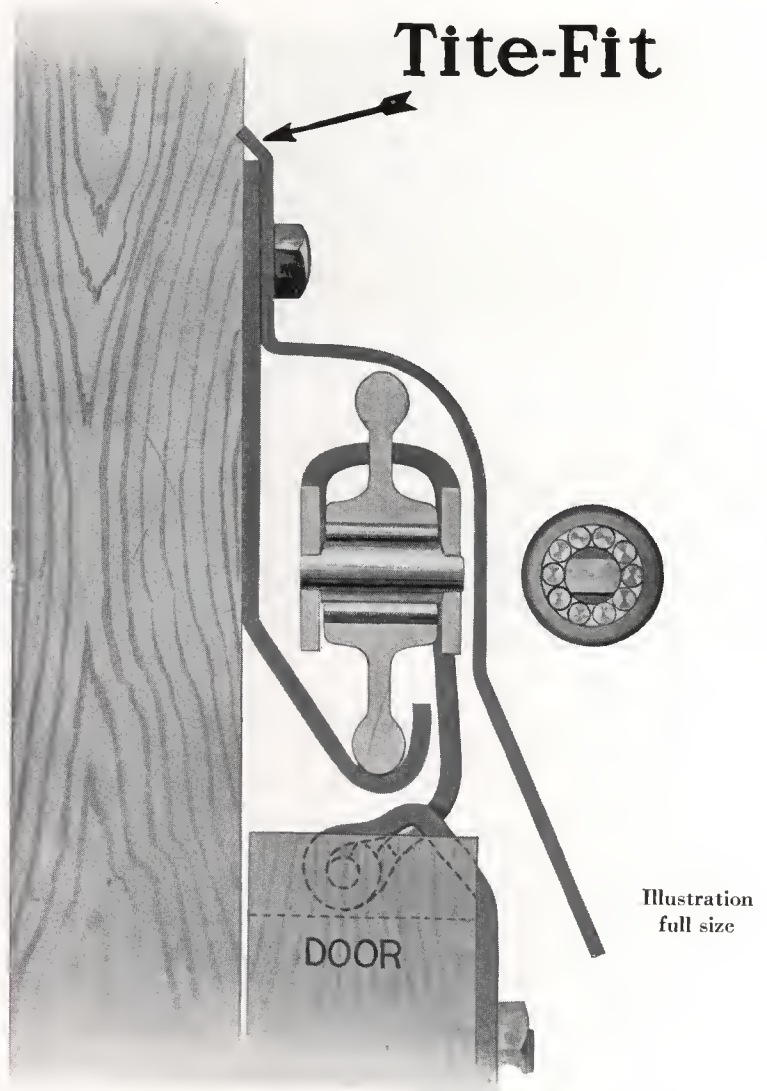
Size of lag-screws furnished to secure rail, $2 \times \frac{3}{8}$ inches; to secure end-caps in rail, $3\frac{1}{2} \times \frac{5}{16}$ inches.

Finish: Japanned or Hot Galvanized.

Made in 4-, 6-, 8- and 10-foot lengths, two pieces of a length in a bundle. (For method of packing, see page 31.)

Weight, per hundred feet, 265 pounds.

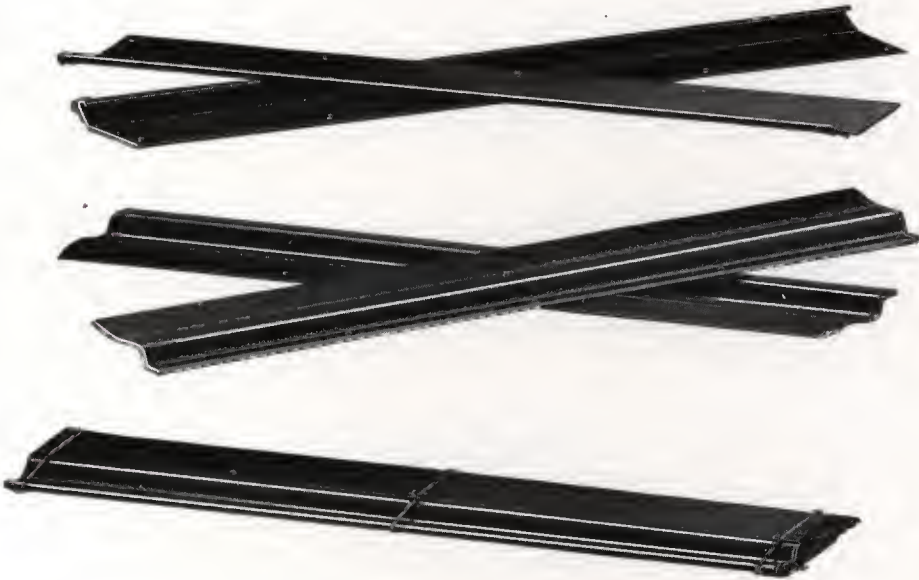
Sectional View of Storm-Proof Hanger and Rail



This illustration shows very clearly the extra length of the cover. The cover comes down to a point where it fully protects the opening above the top of the door.

Note the "Tite-Fit" Storm-Proof feature at the top, the perfect tread for the wheels and the roller bearings with which each wheel is equipped.

Method of Packing Storm-Proof Rail



The accompanying illustration shows the method used for packing our Storm-Proof Rail. This method of packing has proved so popular with our customers that it deserves special mention.

Two pieces of a length, both cover and Rail, are packed in a bundle. The parts nest compactly together and consequently occupy less than one-half the space in the store room of any other enclosed Rail.

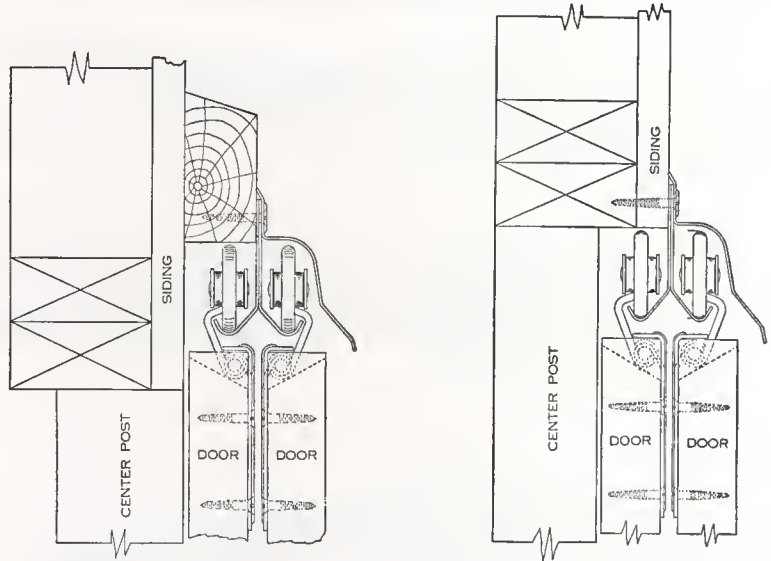
The corners and edges are fully protected and cannot get bent in shipping or handling. The Rail reaches destination in perfect condition.

Many of our dealers say they seldom find it necessary to open a bundle. For a 4-foot opening, a bundle of two pieces, each 4 feet long, is supplied; for a 6-foot opening, a bundle of two pieces, each 6 feet long; for an 8-foot opening, a bundle of two pieces, each 8 feet long; and for a 10-foot opening, a bundle of two pieces, each 10 feet long.

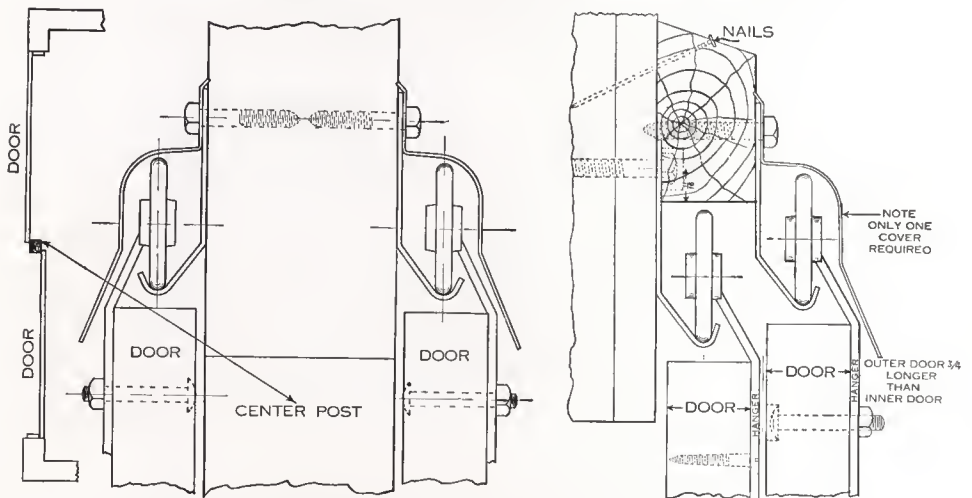
As the most particular part of hanging a door is lining up the track properly on the building, the Rail is made in two pieces, track and cover. The carpenter has only one-half the weight to handle while lining up the Rail, as the cover is not put in place until everything is ready for inserting the lag-screws. The Rail is very easy to handle, as it is flat like a board.

All these features have been adopted only after careful investigation and experiment, and should be taken into consideration when comparing Storm-Proof with other enclosed rails.

Methods of Hanging Doors to Pass Each Other



No. 55 Storm-Proof Junior Hangers and Rail



No. 66 or No. 77 Storm-Proof Hangers and Rail

The above drawings illustrate interesting and practical methods of hanging doors to pass each other.

No special brackets or equipment are required. Note that on three drawings only one cover is used, reducing the cost quite materially. Full-size drawings will be gladly sent on request.

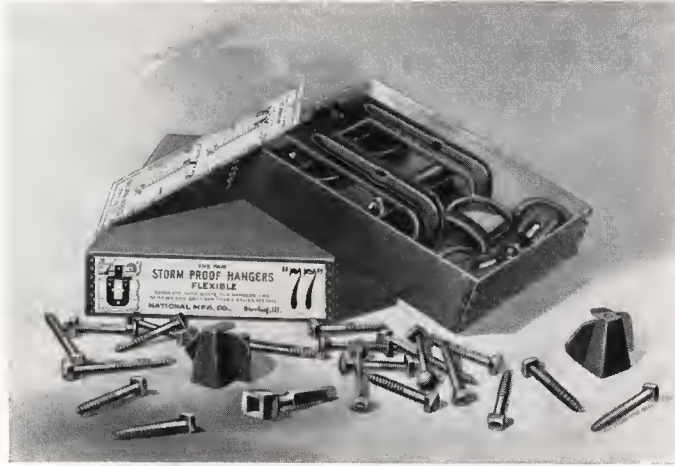
Method of Packing Storm-Proof Hangers

Storm-Proof Hangers are packed one pair in a metal-edge box. Each box contains the following:

- 1 pair Hangers.
- 2 end-caps for Rail.
- Enough $2\frac{1}{4} \times \frac{5}{16}$ -inch bolts to attach Hangers to door.
- 2 lag-screws, $3\frac{1}{2} \times \frac{5}{16}$ inches, to attach end-caps in Rail.
- 9 lag-screws, $2 \times \frac{3}{8}$ inches, to attach Rail to building.
- 1 card of directions.

Socket wrenches for lag-screws and bolts are also furnished, one with every two pairs of Hangers. Box containing wrench is distinguished by a special label.

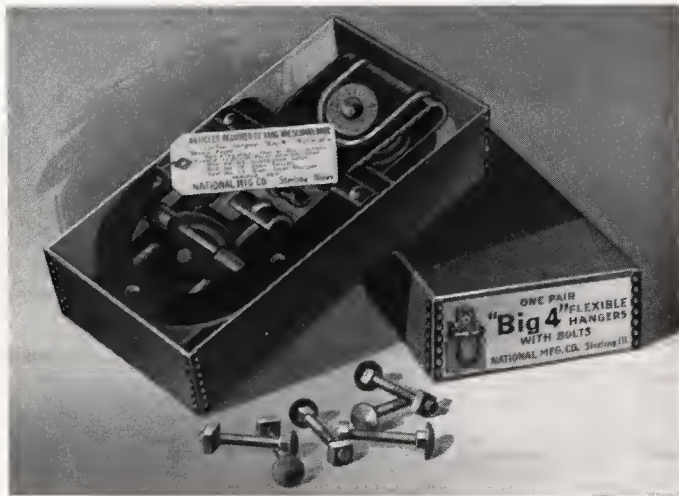
Boxes are neatly labeled and will make an attractive appearance on your shelves.



Method of Packing "Big 4" Hangers

"Big 4" Hangers are packed one pair in a metal-edge box with $2\frac{1}{4} \times \frac{5}{16}$ -inch bolts for attaching the Hangers to the door. Attached to each pair of Hangers is a printed tag giving a list of the articles required to properly equip each door. The list serves as a reminder to the clerk, and will help make sales of the articles listed.

Boxes are neatly labeled and will make an attractive appearance on your shelves.



“Big 4” Flexible Door Hanger

(Patented)

Anti-Friction-Steel Roller Bearings



Sectional view



Front view of “Big 4” Hanger

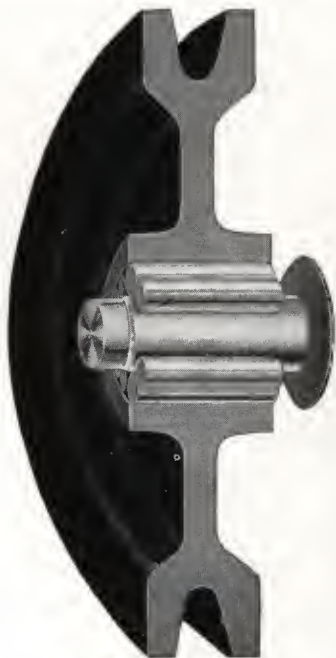
Among all the Barn Door Hangers placed on the market since sliding barn doors have been in use, the “Big 4” stands pre-eminent. Thousands of dozen pairs have been sold and are giving the most satisfactory service under varied conditions in all sections of this country and Canada. No better evidence of its superiority is needed than the long years of satisfactory service it has rendered under every imaginable condition. A customer’s best interests are always insured when he is sold “Big 4” Hangers.

The following is a detailed description:

First—The “Big 4” Hanger is built on extremely heavy lines, and in the simplest form of construction. To give greater strength we emboss the hood as shown in the illustration. No complicated parts to get out of order.

Second—The Hanger is made entirely of steel. It is supplied with anti-friction-steel roller bearings, giving a perfectly free motion to the door.

BUILDERS' HARDWARE



Sectional view of Axle
and Bearings

Third—It is both a flexible and a rigid Hanger. When the door is hanging in its normal position, the Hanger is perfectly rigid, there being no vibration as in other flexible hangers. At the same time, if anything should bump against the door, the flexible feature comes into play and the door is allowed to swing out and rise higher than with any other flexible hanger.

Fourth—The Hanger is fastened to but one side of the door, which makes it much easier to attach than the elevis-style hanger.

Fifth—There are three bolt-holes in each Hanger, and when coupled up the door comes closer to the track than with any other hanger.

Sixth—The axle has a shoulder on the end, which prevents the wheel-housing from being pressed together and binding on the hub of the wheel. *The axles and rivets are cadmium-plated, to prevent rust.*

Seventh—The wheel and frame are japanned before assembling, and the wheel is reamed out *after* japanning. This method prevents the japan from getting into the bearings, as it would if the Hanger were dipped after being assembled.

Eighth—The two studs, together with the hook turned under the rail, absolutely prevent the Hanger from jumping the track. The two studs serve also as a guide to attach Hangers to the door.



Showing flexible feature
of
"Big 4" Hanger

Packed one dozen pairs in a case.
Weight, per dozen pairs, 98 pounds.

“National” Rigid Barn Door Hanger



The embossed steel frame, with edges turned up, makes it very rigid. The lug turned in under the rail keeps the wheel from getting off, and serves as a guide for putting the Hanger on the door. Fitted with anti-friction-steel roller bearings. Packed one pair in a box, with bolts. One dozen pairs in a case. See page 35 for illustration showing bearings.

Made in two sizes, as follows:

No. 11. Width, $3\frac{1}{2}$ inches. Diameter of wheel, $3\frac{1}{2}$ inches.
Weight, per dozen pairs, 64 pounds.

No. 12. Width, $4\frac{1}{2}$ inches. Diameter of wheel, $4\frac{1}{4}$ inches.
Weight, per dozen pairs, 87 pounds.

"Braced" Rail



1¼ x ¾ inches. Made in 4-, 6-, 8-
and 10-foot lengths.

This Rail is used with the "Big 4" and National Hangers.

During the time it has been on the market, millions of feet have been sold and are giving universal satisfaction.

The following are points of superiority:

The brackets are the same width and thickness as the Rail itself.

It is braced below, so the screws will hold more than three times as much.

The holes are staggered, so the screws will not go into the same grain of wood.

The brackets are only 12 inches apart and double-riveted, making it very rigid.

Any flat-rail barn door hanger will run on it.

Eight pieces of a length in a bundle.
Weight, per hundred feet, 97 pounds.

No. 88 Storm-Proof Model



The above is a reproduction of No. 88 Storm-Proof Model. The articles on the model are all full size, taken from stock, and consist of one pair of No. 88 Storm-Proof Hangers, a section of Storm-Proof Rail, a "Washburne" Latch and a No. 2 Handle Hinge Hasp.

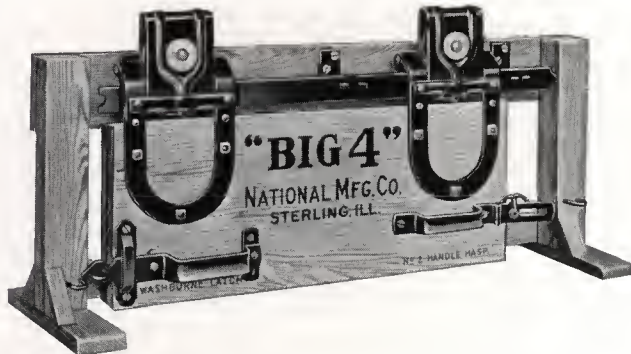
A model of No. 66 or No. 77 Hangers, similar to above, can also be furnished.

These models are a big selling help and every dealer should have one.

No. 66 Model weighs 28 pounds. No. 77 Model weighs 28 pounds.

No. 88 Model weighs 31 pounds.

"Big 4" Model

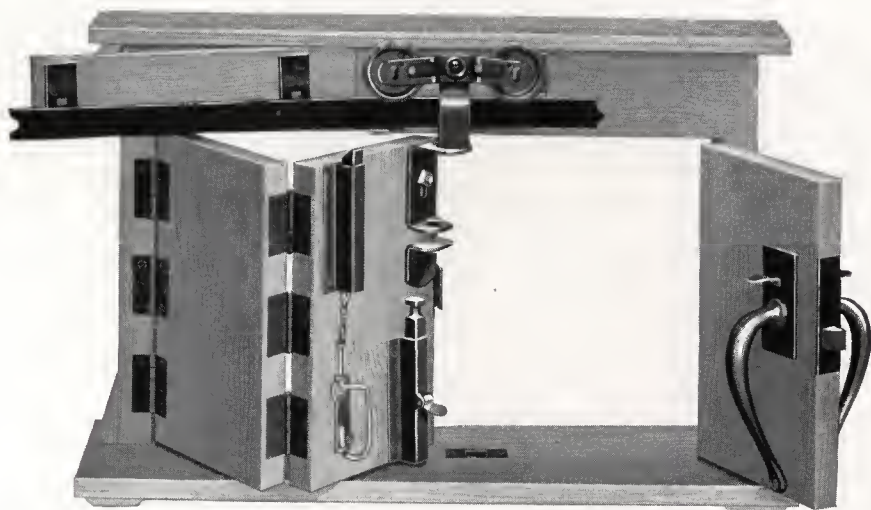


The above illustration is a reproduction of our "Big 4" Model. It shows the "Big 4" Hanger drilled to show Roller Bearings, Braeced Rail, "Washburne" Latch and No. 2 Handle Hinge Hasp. The articles on the model itself are all full size, and the model is nicely finished and lettered. Every dealer handling the "Big 4" Hanger should have one.

Weight, 22 pounds.

BUILDERS' HARDWARE

No. 806 Garage Door Set Model



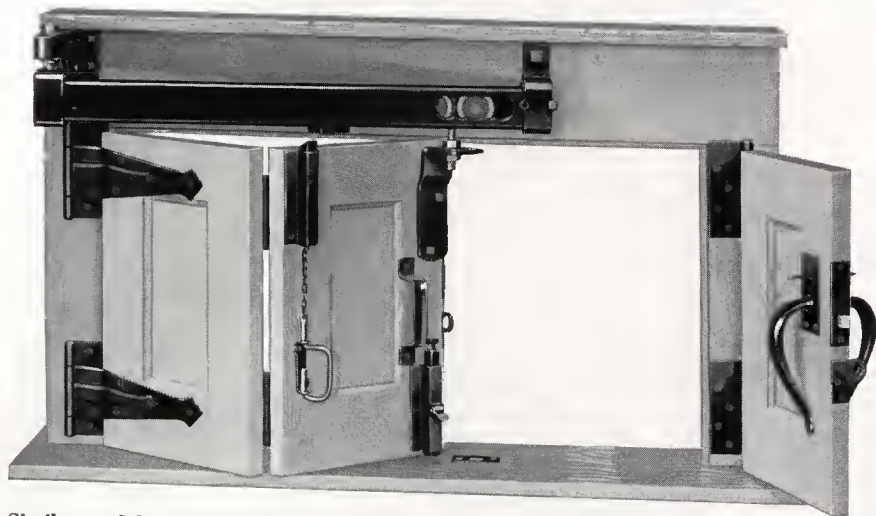
One of these models should be on display wherever these sets are in stock. It affords an excellent and practical method of demonstrating the superior features of these sets.

A similar model of the No. 805 set can be furnished when desired.

Weight, No. 805 Garage Set Model, 33 pounds.

Weight, No. 806 Garage Set Model, 38 pounds.

No. 816 Garage Door Set Model



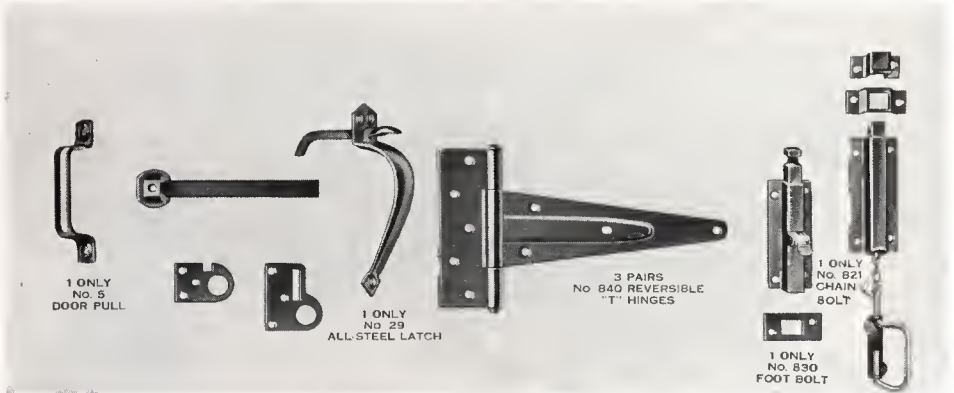
Similar models of No. 815 and No. 817 Garage Sets can be furnished if desired.

Weight, No. 815 Garage Set Model, 85 pounds.

Weight, No. 816 Garage Set Model, 87 pounds.

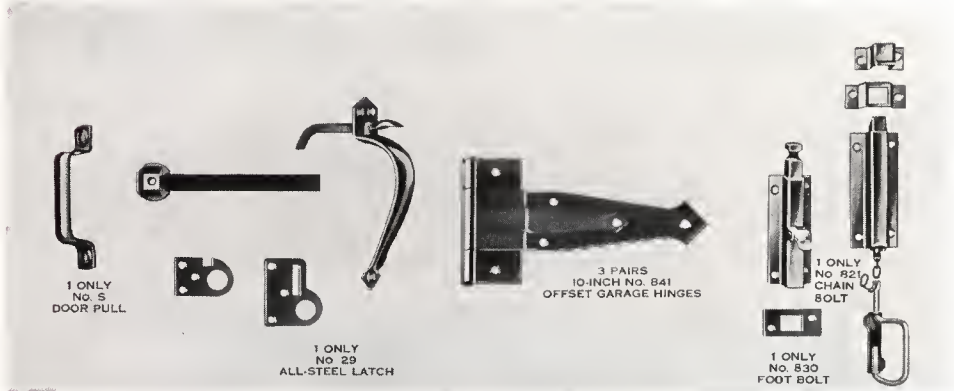
Weight, No. 817A Garage Set Model, 67 pounds.

No. 800 Garage Set



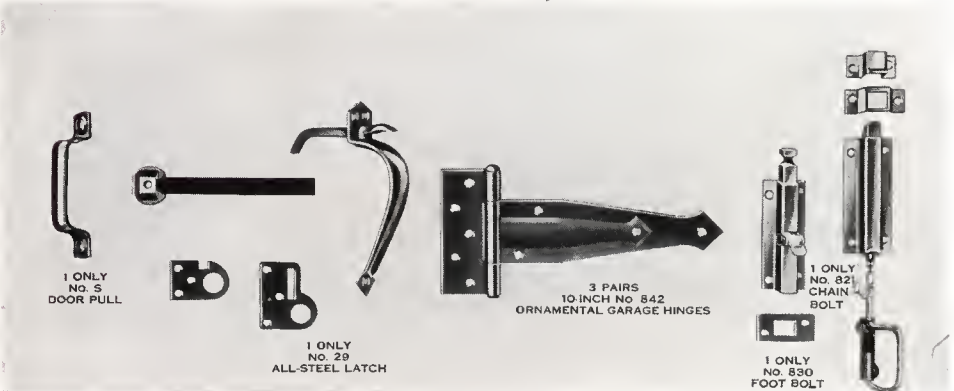
Packed one complete set in a strong, metal-edge box. For list of contents, see pages 70 and 71.

No. 800A Garage Set



Packed one complete set in a strong, metal-edge box. For list of contents, see pages 70 and 71.

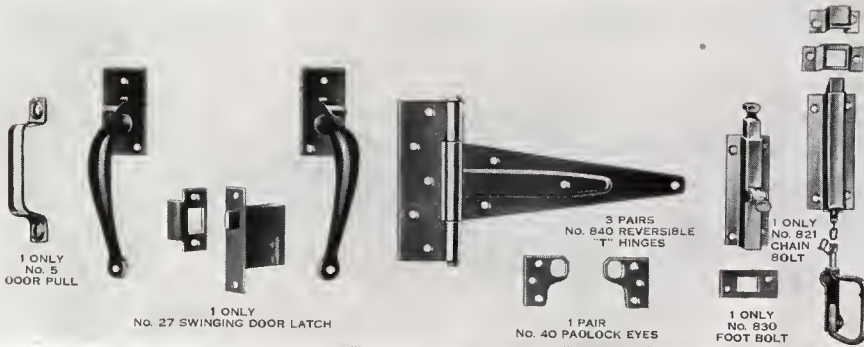
No. 800B Garage Set



Packed one complete set in a strong, metal-edge box. For list of contents, see pages 70 and 71.
Above sets furnished in Japan, Dead Black Japan, Sherardized, Sherardized and Dead Black Japan.

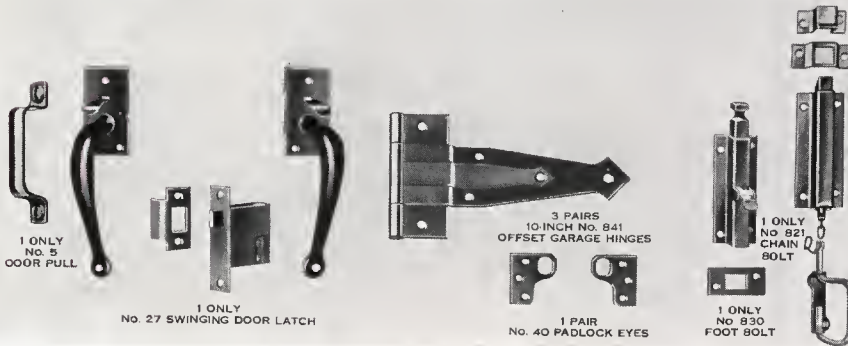
BUILDERS' HARDWARE

No. 801 Garage Set



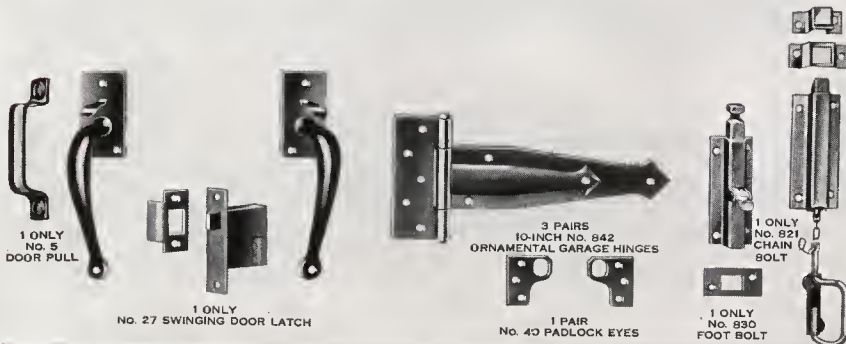
Packed one complete set in a strong, metal-edge box. For list of contents, see pages 70 and 71.

No. 801A Garage Set



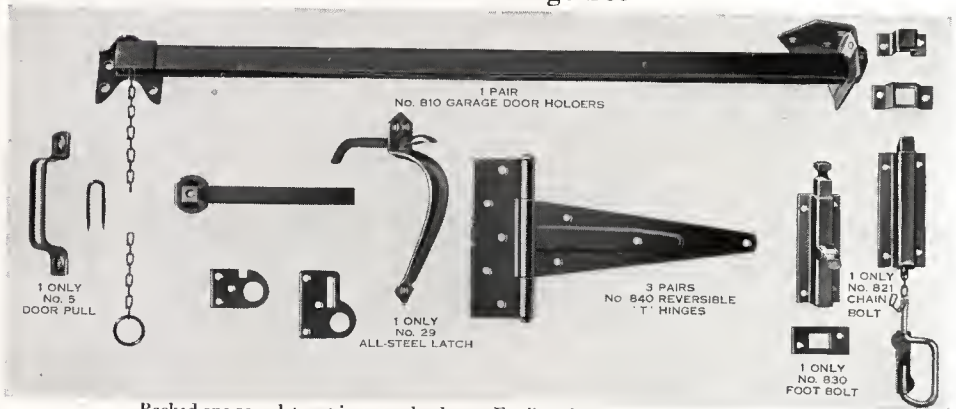
Packed one complete set in a strong, metal-edge box. For list of contents, see pages 70 and 71.

No. 801B Garage Set



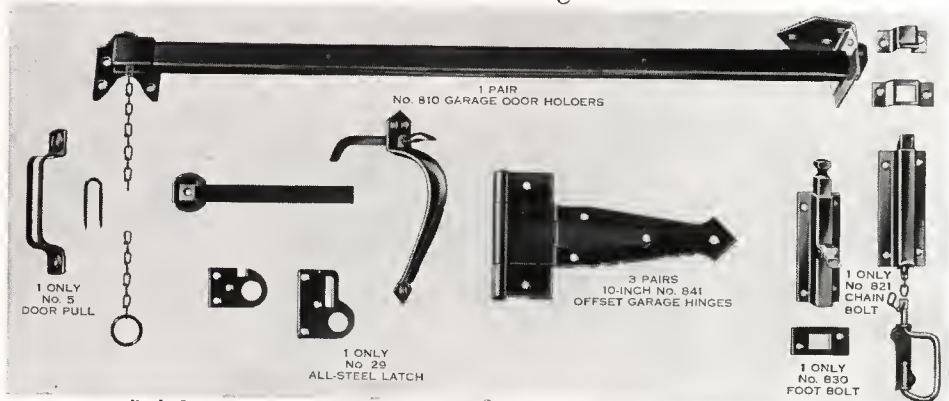
Packed one complete set in a strong, metal-edge box. For list of contents, see pages 70 and 71.
Above sets furnished in Japan, Dead Black Japan, Sherardized, Sherardized and Dead Black Japan.

No. 800H Garage Set



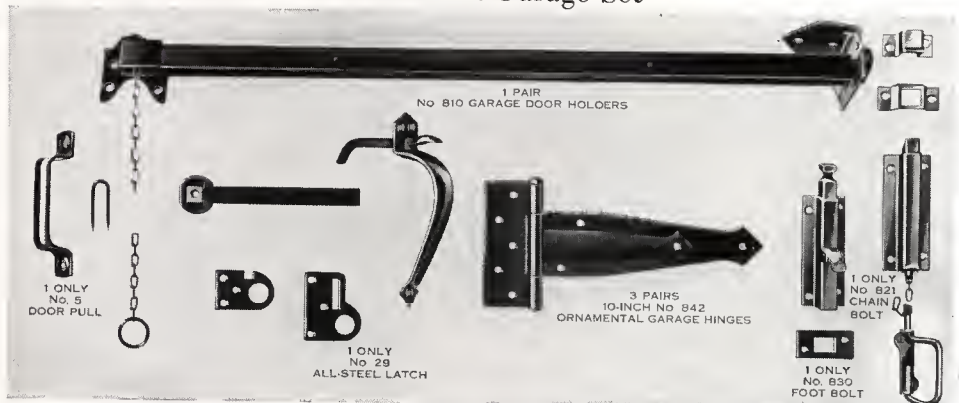
Packed one complete set in a wooden box. For list of contents, see pages 70 and 71.

No. 800AH Garage Set



Packed one complete set in a wooden box. For list of contents, see pages 70 and 71.

No. 800BH Garage Set

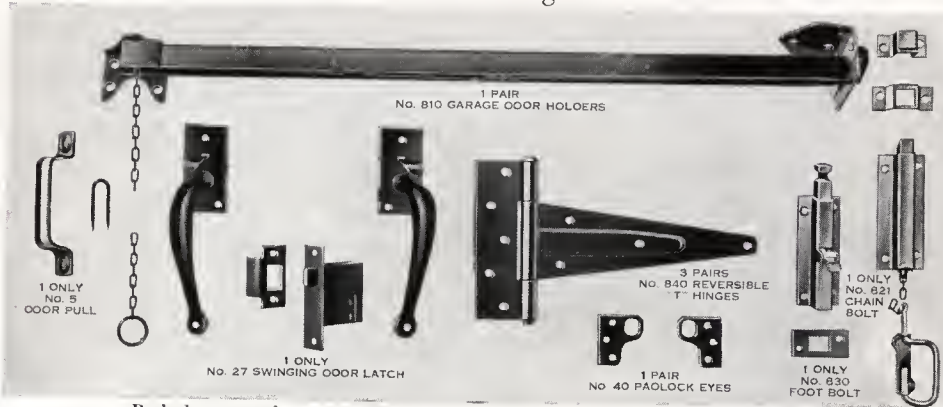


Packed one complete set in a wooden box. For list of contents, see pages 70 and 71.

Above sets furnished in Japan, Dead Black Japan, Sherardized, Sherardized and Dead Black Japan.

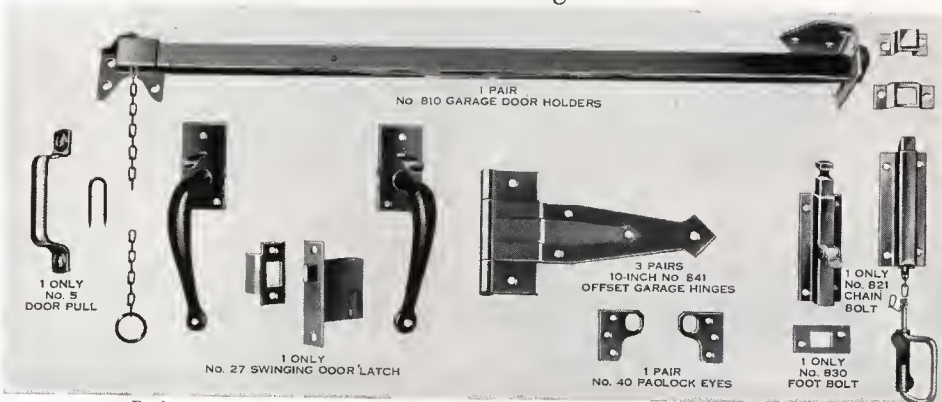
BUILDERS' HARDWARE

No. 801H Garage Set



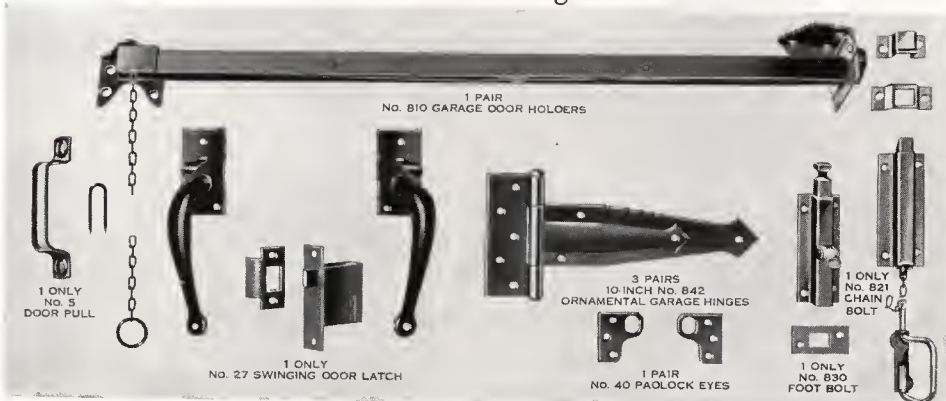
Packed one complete set in a wooden box. For list of contents, see pages 70 and 71.

No. 801AH Garage Set



Packed one complete set in a wooden box. For list of contents, see pages 70 and 71.

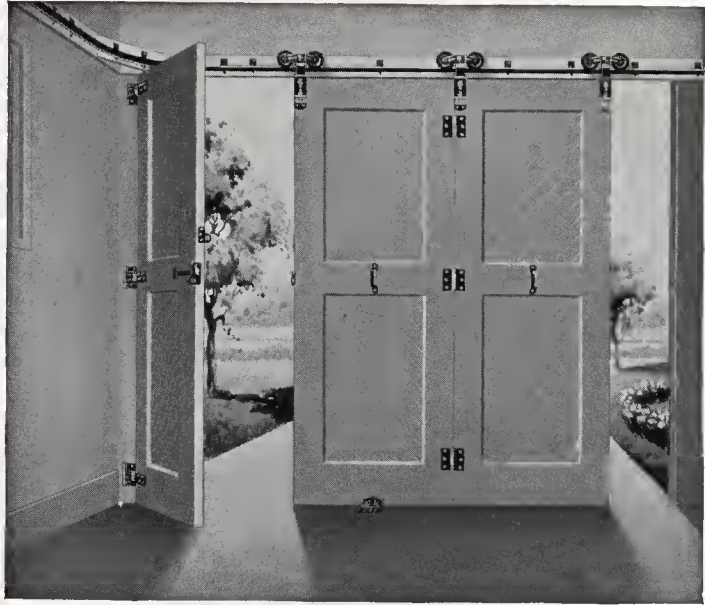
No. 801BH Garage Set



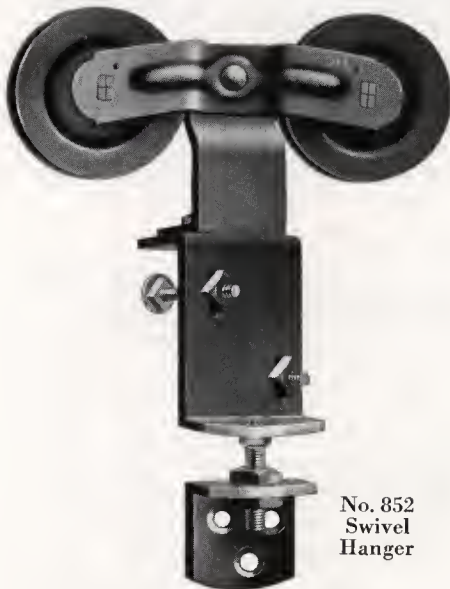
Packed one complete set in a wooden box. For list of contents, see pages 70 and 71.

Above sets furnished in Japan, Dead Black Japan, Sherardized, Sherardized and Dead Black Japan.

No. 803 Garage Door Set



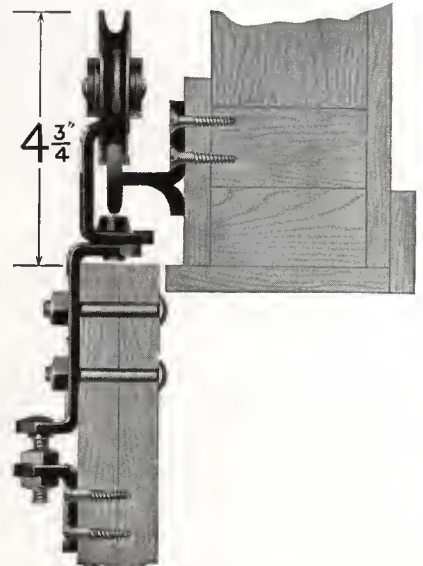
Designed to carry doors around the corner.



No. 852
Swivel
Hanger

This Swivel Hanger is so designed that it will carry the doors around the corner without binding or sticking.

Weight, one only, $3\frac{1}{4}$ pounds.



Sectional view of
No. 852 Swivel Hanger.

No. 803 Garage Door Set

The swivel hangers are equipped with two wheels so that they will follow the track better. The truck that connects these wheels is bent slightly to prevent the flanges of the wheels from binding when turning the corner.

The hangers are adjustable.

All hardware is hung on the inside of building and protected from the weather.

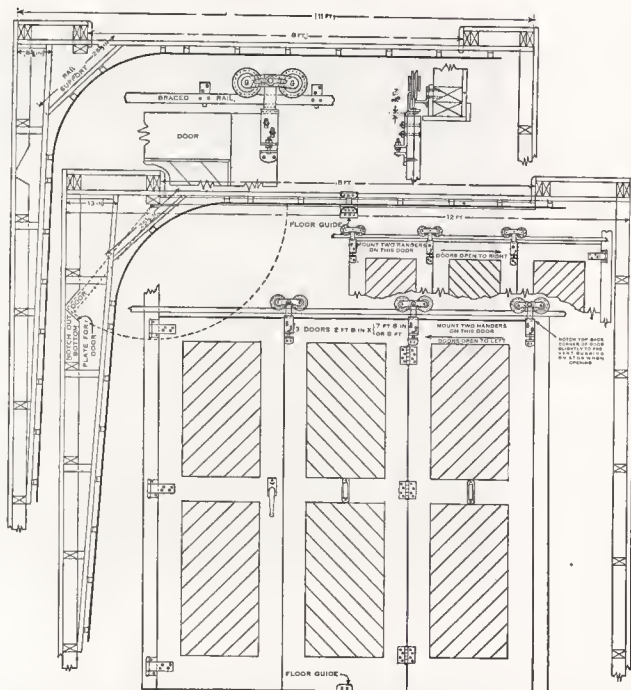
Can be used for doors operating either to right or left.

Furnished regularly for an 8-foot opening with 8 feet of Braeced Rail for over the door opening, 6 feet for along the side wall, and a 27-inch radius curve for turning the corner. This curve is bent at the factory to insure a perfect arc when hung.

For larger doors, width of opening should be given when ordering.

Furnished in Japan finish only.

For list of contents, see pages 70 and 71.

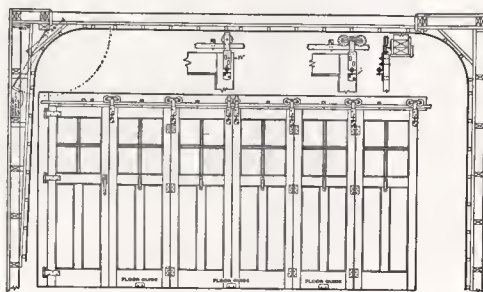


No. 852½ Single-Wheel Swivel Hanger



For use with No. 803 Garage Door Sets when two sets are used in an opening without center post, as illustrated.

Weight, one only, 2¼ pounds.



No. 804 Garage Door Set



View outside garage

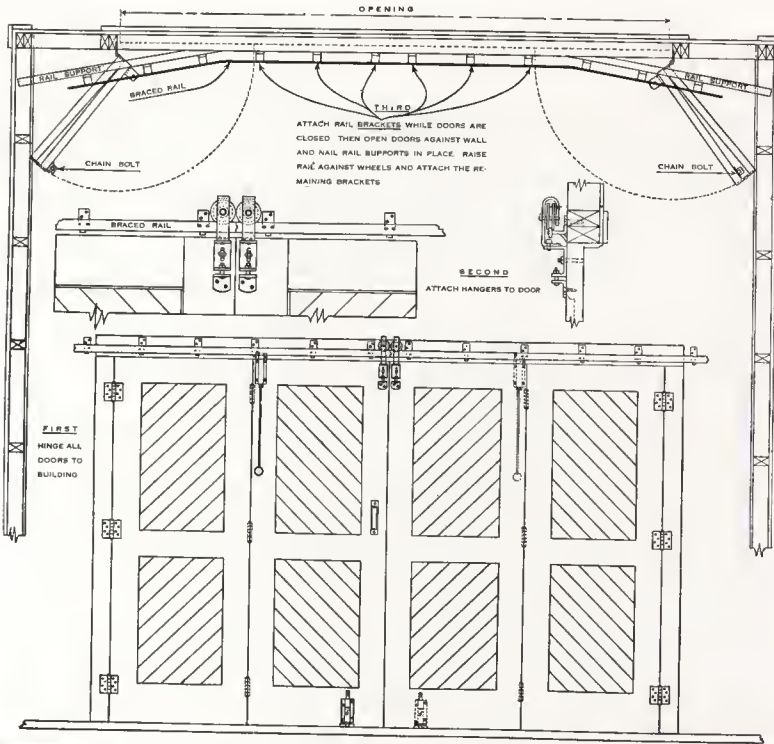


View inside garage

(For description, see opposite page.)

BUILDERS' HARDWARE

No. 804 Garage Door Set



This set makes an absolutely weather-tight job. The doors swing into jamb against stops.

The doors require a minimum of space in opening. Being hung on the inside, equipment is protected from the weather. Snow and ice will not interfere with opening and closing of doors.

The four doors are hung with 4 x 4-inch butts, with a strong, adjustable roller-bearing hanger on the outer end which prevents the doors from sagging. Adjustment on hanger makes it possible to adjust doors in case of swelling or raising of cement floor. Works as freely and easily as any house door.

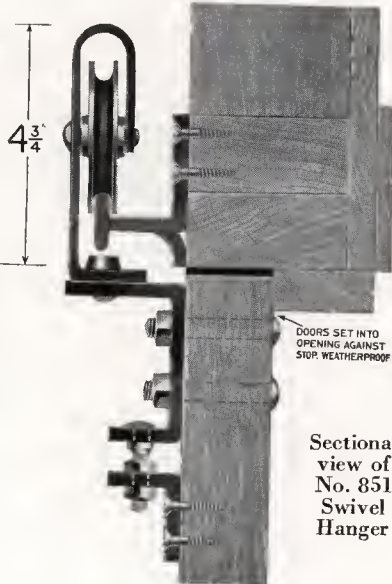
Furnished in Japan finish only.

For list of contents, see pages 70 and 71.

Weight, one only No. 851 Hanger, $2\frac{1}{2}$ pounds.



No. 851 Swivel Hanger

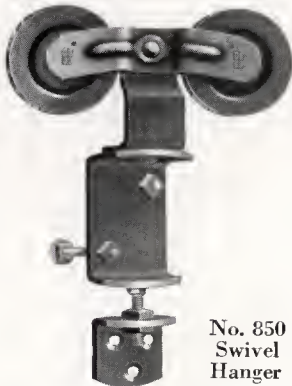


Sectional view of No. 851 Swivel Hanger

Nos. 805½ and 806½ Sliding and Swinging Garage Door Sets



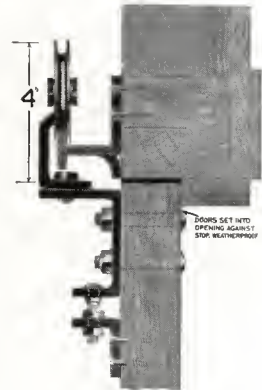
Inside view of No. 806½ showing doors closed



No. 850
Swivel
Hanger

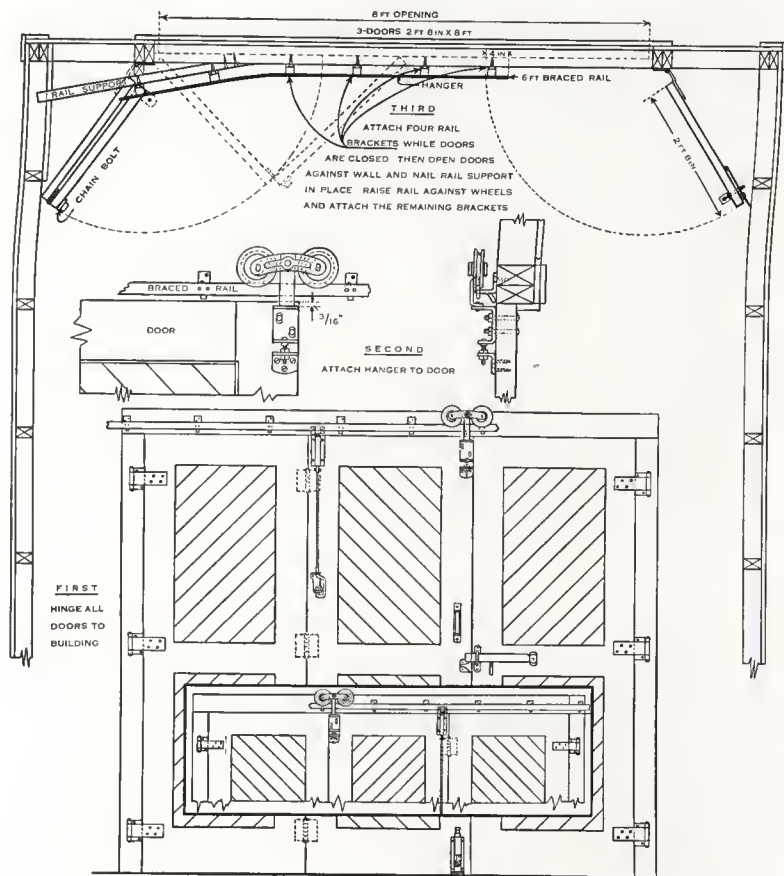
The Hanger operates on a swivel and turns on the track without sticking or binding in any way.

Weight, one only, 3 pounds.



Sectional view of
No. 850 Swivel Hanger

Nos. 805½ and 806½ Sliding and Swinging
Garage Door Sets



These sets are identical with the No. 805 and No. 806 Sliding and Swinging Garage Door Sets, except that No. 847 Offset Garage Hinges are used to attach the doors to the jambs.

With these offset hinges, the doors swing practically clear of the opening.

Furnished regularly with 6-foot Braced Rail for 8-foot opening. When used on larger doors, width of opening should be given when ordering.

All sets furnished in Japan finish.

For list of contents, see pages 70 and 71.

Nos. 805 and 806 Sliding and Swinging Garage Door Sets



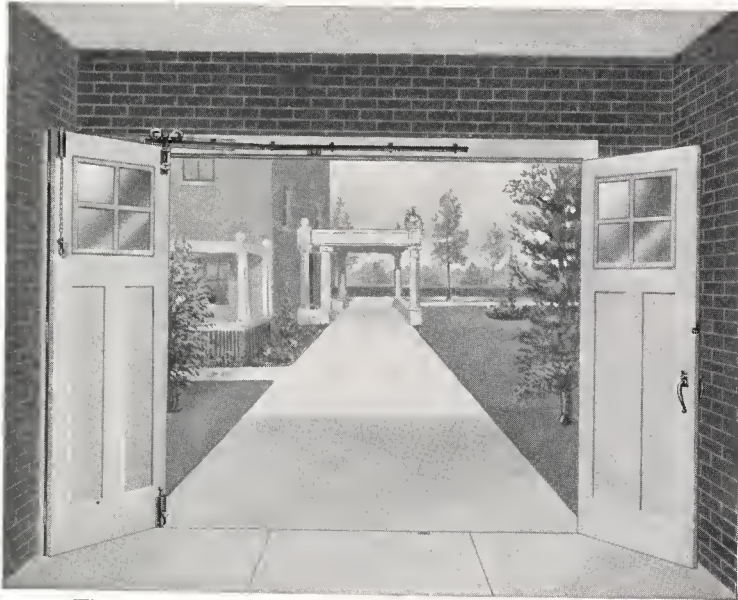
The appearance of garage from outside is enhanced by absence of any structural ironwork. Note how the one door opens without disturbing the others.



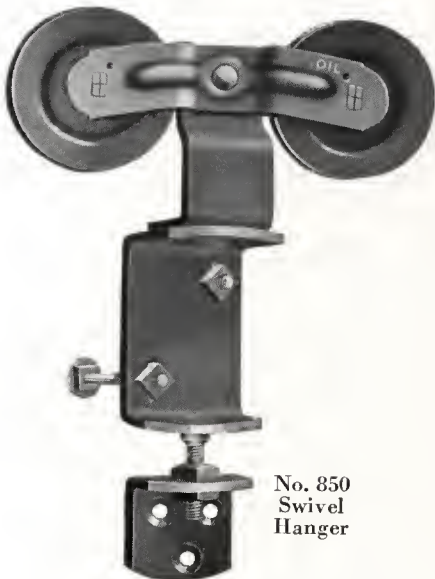
Inside view, showing doors closed. As they open inward, snow and ice cannot interfere. Doors swing into jamb against stops.
(For description, see page 52.)

BUILDERS' HARDWARE

Nos. 805 and 806 Sliding and Swinging Garage Door Sets



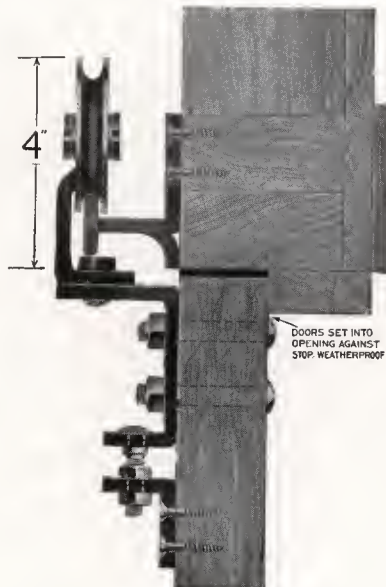
This view shows how snugly the doors hug the inside walls when open—allowing maximum space in the garage.



No. 850
Swivel
Hanger

The Hanger operates on a swivel and turns on the track without sticking or binding in any way.

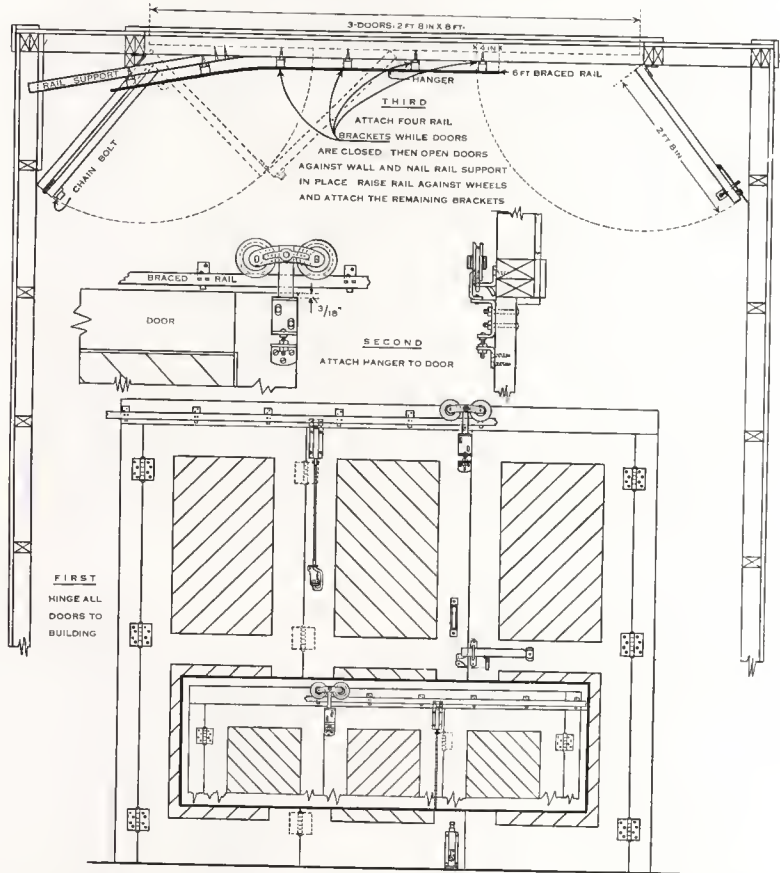
Weight, one only, 3 pounds.



Sectional view of
No. 850 Swivel Hanger.

(For description, see page 52.)

Nos. 805 and 806 Sliding and Swinging Garage Door Sets



An easy-working garage door set—a simple push and the doors are open; a slight pull and they are closed. No binding or friction. Doors work as freely and easily as any house door.

Doors swing into jamb against stops, same as in high-class house construction.

Doors are weather-tight. Snow and ice cannot interfere with opening and closing.

Convenient access to garage as one door is hung so it will open without disturbing the other two. Hangers are adjustable in case of swelling or raising of cement floor. Adjustable feature prevents sagging doors.

Doors require minimum space in opening as they are hung on inside and fold and slide against inner wall.

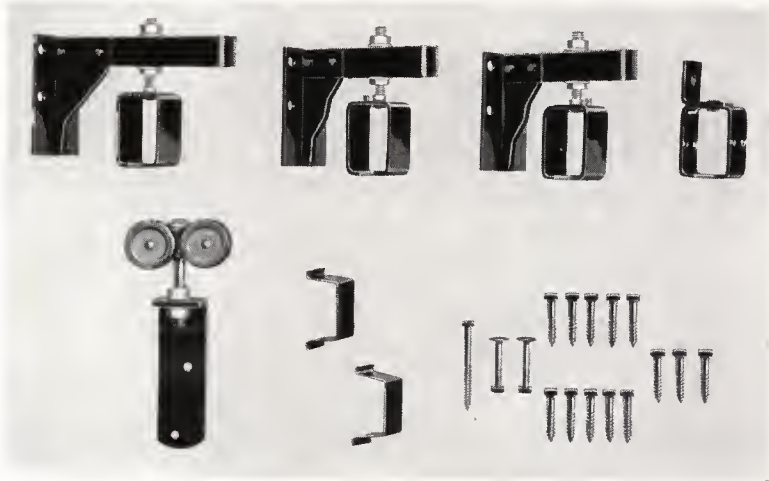
The price makes it the cheapest combination possible with which to efficiently equip garage doors.

Furnished regularly with six feet Braced Rail for eight-foot opening. When used on larger doors, width of opening should be given when ordering.

All sets furnished in Japan finish.

For list of contents, see pages 70 and 71.

No. 814 Trolley Garage Set



This set is packed for use in special cases where the hinges, bolts, latches, rail, etc., are purchased separately.

The set contains the following:

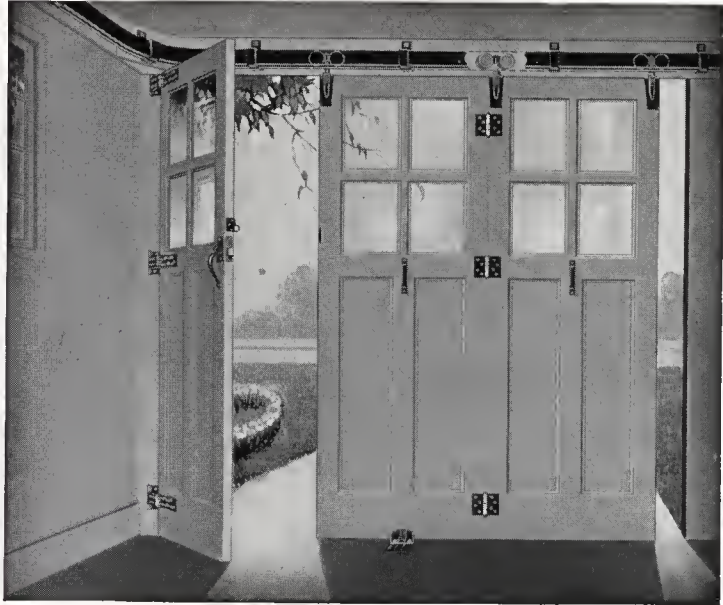
- 1 only No. 853 Roller-Bearing Swivel Trolley Hanger
- 1 only A-51 Center Bracket
- 2 only B-51 Intermediate Brackets
- 1 only C-51 End Bracket
- Bolts and lag-screws for attaching above
- End-caps for No. 51 Trolley Rail

Furnished in Japan and Hot Galvanized finishes. One complete set in a box.

For list of contents, see pages 70 and 71.

Weight, per set, 14 pounds.

Nos. 812 and 813 Trolley Garage Door Sets



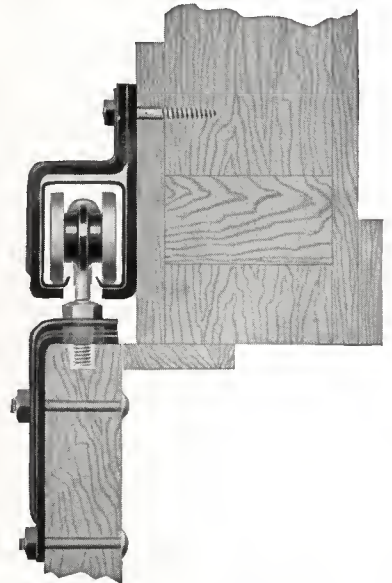
Designed to carry doors around the corner.



No. 855
Swivel Trolley Hanger.
Weight, one only,
 $2\frac{3}{4}$ pounds.



No. 855½ Single-
Wheel Swivel Hanger.
Weight, one only,
 $2\frac{3}{4}$ pounds.

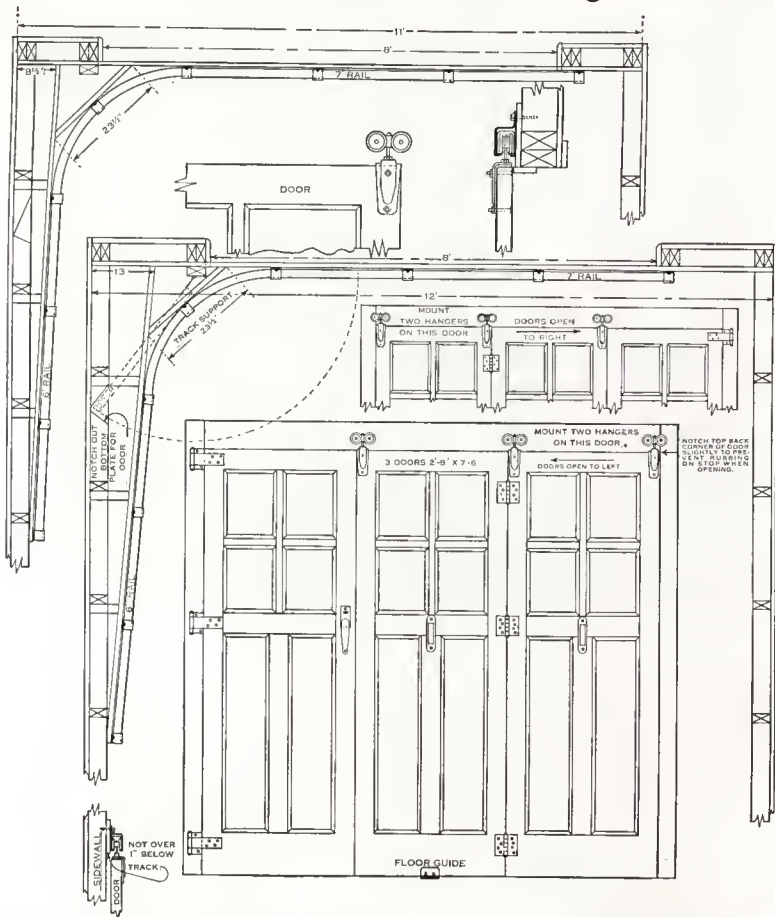


Sectional view of No. 855
Trolley Hanger and
No. 51 Trolley Rail.

(For description, see page 55.)

BUILDERS' HARDWARE

Nos. 812 and 813 Trolley Garage Door Sets



The No. 855 Trolley Garage Hanger is deeply embossed, which provides additional strength. The hanger has both lateral and vertical adjustment features. Connecting bolt is $\frac{1}{2}$ -inch, with S. A. E. thread.

All the hardware is hung on the inside of the building.

Furnished regularly for an 8-foot opening with 8 feet of No. 51 Trolley Rail for use over the door opening, 6 feet for along side wall and a 27-inch radius curve for turning the corner.

When used on openings wider than 8 feet, additional rail is required, and the width of the opening should be given when ordering.

Furnished in Japan and Hot Galvanized finishes. For list of contents, see pages 70 and 71.

No. 51 Trolley Rail Curves can be furnished as follows for Nos. 812 and 813 sets:

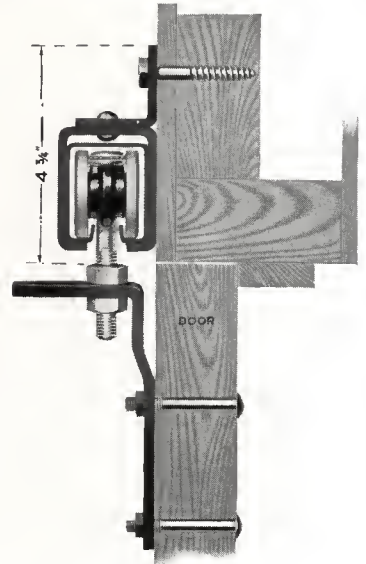
- 12-inch radius, weight, 3 pounds each.
- 18-inch radius, weight, 6 pounds each.
- 27-inch radius, weight, 7 pounds each.
- 36-inch radius, weight, 9 pounds each.



Nos. 815 and 816 Three-Door Trolley Garage Sets



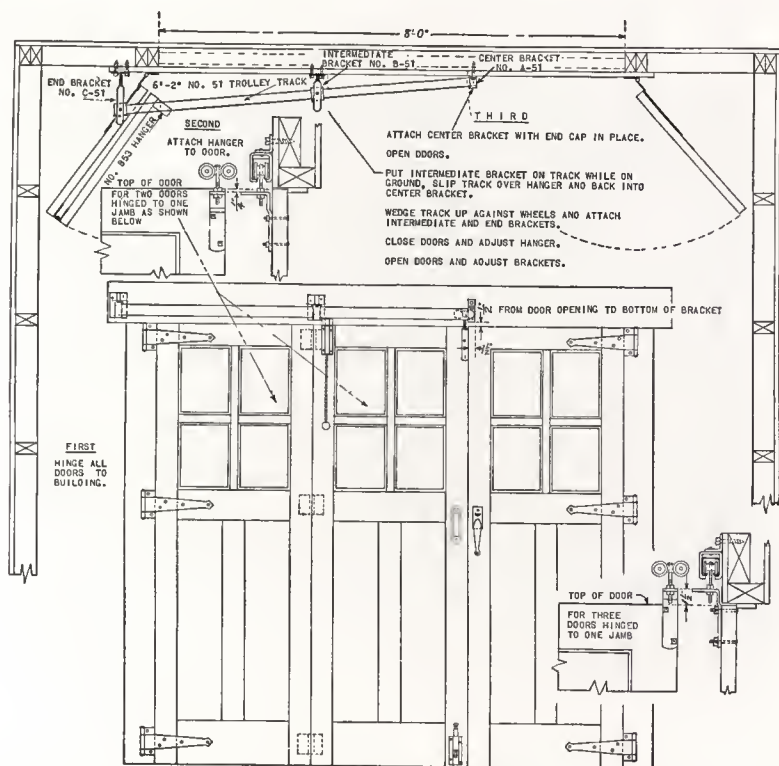
No. 853 Swivel Trolley Hanger
Weight, one only, $3\frac{1}{2}$ pounds



Sectional view of No. 853 Swivel Trolley
Hanger and No. 51 Trolley Rail

(For description, see opposite page.)

Nos. 815 and 816 Three-Door Trolley Garage Sets



In these sets the No. 51 Trolley Rail and the No. 853 Garage Hanger are used. An easily operated weather-tight combination.

The Hanger has both lateral and vertical adjustments, and is equipped with roller bearings.

Can be used either on the inside or outside of garage.

Furnished regularly for an eight-foot opening.

The No. 815 is the same as the No. 816 except No. 29 Latch is used.

For list of contents, see pages 70 and 71.

Furnished in Japan and Hot Galvanized finishes. Packed one complete set in a box.

Nos. 817A and 817B Two-Door Trolley Garage Sets

(For four doors use two sets)

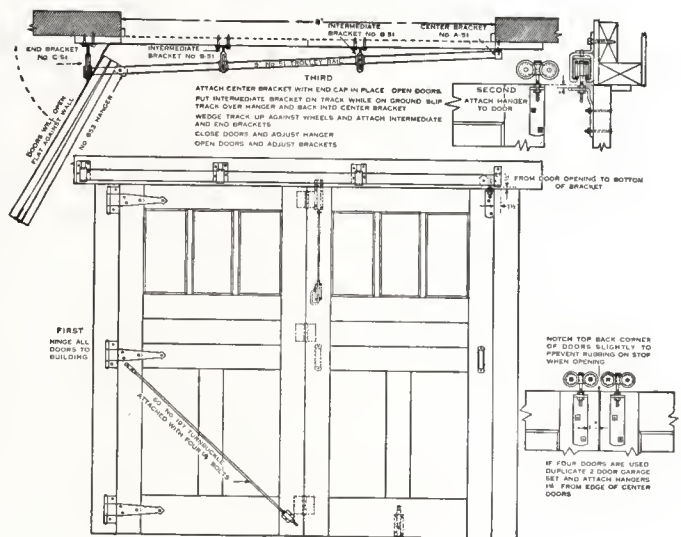


These sets can be used either on the inside or outside of the garage.

Our 60-inch No. 197 Turnbuckle is packed with these sets. It is attached with four 1/4-inch bolts.

For list of contents, see pages 70 and 71. Furnished in Japan and Hot Galvanized finishes. Packed one complete set in a box.

Page 58



No. 817X Four-Door Trolley Garage Set



This set is packed especially for a double opening, using No. 51 Trolley type Hangers and Rail. Can be used either inside or outside of the garage.

Furnished in Japan and Hot Galvanized finishes.

Packed one complete set in a wooden box.

For list of contents, see pages 70 and 71.

No. 823 Trolley Garage Door Set

For heavy doors



No. 41-14 Trolley Rail is used with this set.

The No. 856 Trolley Hanger packed with this set has both lateral and vertical adjustment features.

All hardware is hung on the inside of the garage.

Furnished regularly for a 10-foot opening, with 10 feet of No. 41-14 Trolley Rail for use over the door opening, 10 feet for along the side wall and a 27-inch radius curve for turning the corner.

When used on openings wider than 10 feet, additional rail is required, and the width of the opening should be given when ordering.



Furnished in Japan finish.

For list of contents, see pages 70 and 71.

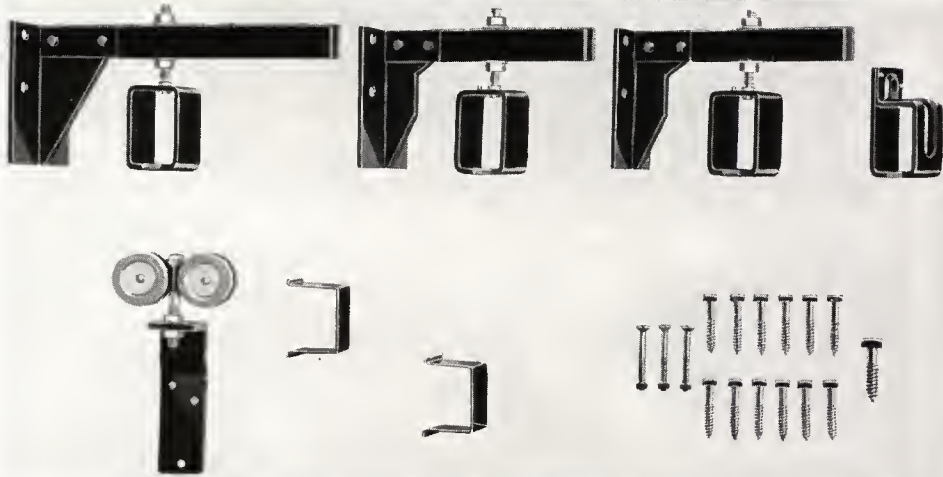
No. 41-14 Trolley Rail Curves can be furnished as follows:

27-inch radius, weight, 13 pounds each.

36-inch radius, weight, 16½ pounds each.

No. 824 Trolley Garage Set

For heavy doors



No. 41-14 Trolley Rail is used with this set.

This set is packed for use in special cases where hinges, bolts, latches, rail, etc., are purchased separately.

The set contains the following:

1 only No. 854 Roller-Bearing Swivel Trolley Hanger. Weight, 7 pounds.

1 only A-41 Center Bracket. Weight, 2¼ pounds.

2 only B-41 Intermediate Brackets. Weight, 9¾ pounds each.

1 only C-41 End Bracket. Weight, 11¾ pounds.

Bolts and lag-screws for attaching above.

End-caps for No. 41-14 Trolley Rail.

Furnished in Japan finish, one complete set in a box.

For list of contents, see pages 70 and 71.

No. 826 Three-Door Trolley Garage Set

For heavy doors



No. 41-14 Trolley Rail is used with this set.

The No. 854 Trolley Hanger used with this set has both lateral and vertical adjustments, and is equipped with roller bearings.



No. 854
Trolley
Hanger

Can be used either on the inside or outside of garage.

Furnished regularly for a ten-foot opening. When used on openings wider than ten feet, additional rail is required, and the width of the opening should be given when ordering.

Furnished in Japan finish.

Packed one complete set in a box.

For list of contents, see pages 70 and 71.

BUILDERS' HARDWARE

No. 827C Two-Door Trolley Garage Set

For heavy doors



No. 41-14 Trolley Rail is used with this set.

The No. 854 Trolley Hanger used with this set has both lateral and vertical adjustments, and is equipped with roller bearings.

Can be used either on the inside or outside of the garage.

Furnished regularly for a ten-foot opening. When used on openings wider than ten feet, additional rail is required, and the width of the opening should be given.

Furnished in Japan finish.

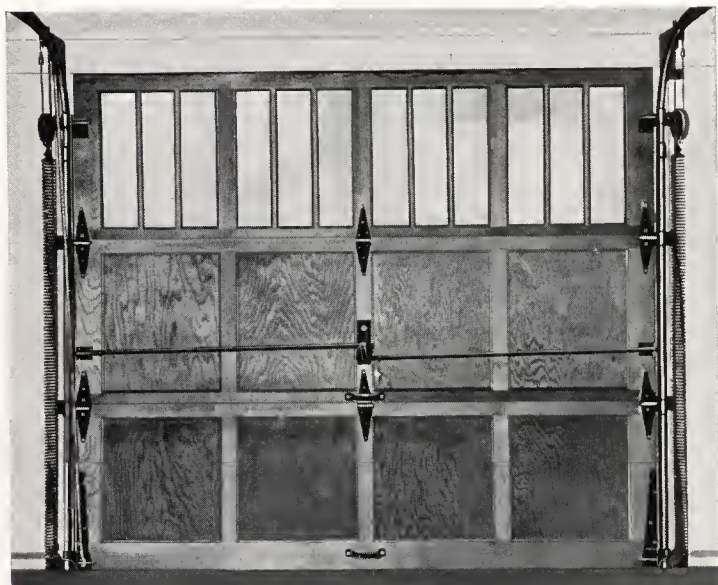
Packed one complete set in a box.

For list of contents, see pages 70 and 71.



No. 854
Trolley
Hanger

No. 900 National Door Set (Patented)



Doors 8 feet wide by 6 feet 6 inches high
Ample clearance above car



Pulley assembly

The upward-acting No. 900 NATIONAL DOOR SET is quickly installed, as hardware is attached to door before shipping.

The exterior presents a very neat appearance, with snug-fitting doors on which no hardware is exposed except the lifting handle and the door lock which releases the slide bolts. An effortless lift on the handle starts the easy, gliding action as the door rolls upward.

On the interior, the hardware is adequately protected from the weather—smooth operation can be relied upon. A maximum amount of floor space is conserved because of the straight-up principle of the door action.

The special cam closing feature illustrated works with automatic simplicity in pushing the door tightly against stops. The doors are rabbeted so that no moisture can enter joint.

Strong vertical springs act as a perfect counterbalance for the weight of the door and function with steel cables that operate easily over large enclosed pulleys. Positive and safe action!

Below—special
closing feature



Above—note
rabbeted joint

No. 900 National Door Set

DATA

RAIL CURVE.

- A. 11-inch radius curve—doors 8 feet wide and 8 feet or less high.
- B. 11-inch radius curve—doors wider than 8 feet and up to and including 7 feet high.
- C. 15-inch radius curve—doors of larger size than above.

HEADROOM (distance between top of door opening and lowest point of ceiling).

- A. The headroom required for regular jobs using an 11-inch radius curve is 13½ inches. (We can furnish special doors in sizes up to and including 8x8 feet for 12-inch headroom.)
- B. The headroom required for 15-inch radius curve is 17½ inches.
- C. Where necessary we can substitute an 11-inch for a 15-inch curve when there is less than 17½-inch headroom but where there is 13 inches of headroom.

CLEARANCE to regular doors (distance from the floor to lower surface of door when up).

- A. Clearance to a door using 11-inch curve—Height of door plus 4½ inches.
- B. Clearance to a door using 15-inch curve—Height of door plus 11 inches.

HYDRAULIC LIFT. Clearance to doors operating over hoists or hydraulic lifts.

- A. 11 feet 6 inches is the normal clearance required under a door when a hoist is to be used. Door less than 10 feet 6 inches high having hoists operating underneath must clear a greater height than is obtained with regular equipment.

It is possible to have a maximum clearance of the distance from the floor to the lowest point of the ceiling minus 4½ inches.

Figure these jobs as follows: Regardless of the size of the actual opening, price the door according to the number of square feet in a door determined by multiplying the actual width of the opening by the height of the clearance desired minus 18 inches. (By clearance we mean the distance from the floor to the lowest point of the door when up.)

Example: Width of opening, 8 feet.
Height of opening, 8 feet.
Clearance desired, 11 feet 6 inches.
8 feet (width) x 10 feet (clearance height minus 18 inches) =
80 square feet.

GENERAL INFORMATION

Doors are made of white pine, with 3-ply fir panels, using water-proof glue. They are of dowel-pin construction, there being two ½ x 4½-inch oak dowel pins to each joint. Door sections come in equal widths and are specially rabbeted so that rain and moisture will drain out. A heavy reinforcing bar of steel is attached to the top section of the door to prevent sagging when the door is open.

Glazing. All doors are regularly furnished with one section glazed.

Springs. The hardware and door are furnished complete. Springs work vertically instead of horizontally and the weight of the pulleys and springs aids in counterbalancing the door. An ample spring adjustment is provided. Doors are hung and tested at factory.

Cable. We use an exceptionally fine ⅜-inch galvanized cable in all sets, and on sizes larger than 8x8 feet we use aircraft cable.

(Continued on page 66)

GENERAL INFORMATION—Continued

Pulleys 5½ inches in diameter operate on hardened roller bearings. The sheave has a fiber center, insuring a minimum of cable wear. There is a guard around the entire pulley.

Brackets. The width of the brackets is 2¾ inches. They are heavily embossed. Adjustable sidewise and accommodate doors up to 1¾ inches in thickness.

Cams. The cams are integral parts of the brackets and are securely riveted to the rail. The cam rollers operate on large hardened axles and engage the cams when the door closes, forcing the door over against the stops.

Wheels and Axles. The axles are heat-treated and hardened. The wheels have hardened ball bearings.

Hinges are 12 inches long when open. The hinge pin is of solid steel.

Rail. The curve is an integral part of the horizontal section of rail and is attached to the vertical rail with a splice joint which insures true alignment. The horizontal rail on doors 10x10 feet and larger is reinforced with heavy angle iron.

Truss Rods. All doors over 10 feet in width are equipped with special truss rods or struts which prevent sagging.

Lock. An especially heavy cylinder lock is furnished with all doors. If two or more doors are used on the same job they can be ordered keyed alike. The door can be operated alike either from the inside or the outside. Also the latching bar can be engaged without locking the door.

Finish. Cable is galvanized. All bolts and rail wheels are cadmium-plated. The hardware is japanned. Complete directions for hanging are packed with each set.

The Following Sizes, Except as Indicated, are Carried in Stock:

| Wide | Sizes High | Thickness | Number of Sections | Panels to a Section | Complete Door Shipping Weight | Hardware Shipping Weight | Door Weight Without Hardware Not Crated |
|-------|-------------|-----------|--------------------|---------------------|-------------------------------|--------------------------|---|
| 7'6" | x 7'0" (†) | 1¾" | 3 | 4 | 268 lbs. | 133 lbs. | 93 lbs. |
| 7'6" | x 7'6" (†) | 1¾" | 3 | 4 | 279 lbs. | 137 lbs. | 97 lbs. |
| §8'0" | x 6'6" (†) | 1¾" | 3 | 4 | 264 lbs. | 133 lbs. | 92 lbs. |
| 8'0" | x 7'0" (†) | 1¾" | 3 | 4 | 273 lbs. | 136 lbs. | 95 lbs. |
| 8'0" | x 7'0" (†) | 1¾" | 4 | 4 | 315 lbs. | 140 lbs. | 111 lbs. |
| 8'0" | x 7'6" (†) | 1¾" | 3 | 4 | 282 lbs. | 139 lbs. | 103 lbs. |
| 8'0" | x 7'6" (†) | 1¾" | 4 | 4 | 330 lbs. | 155 lbs. | 119 lbs. |
| 8'0" | x 8'0" (†) | 1¾" | 4 | 4 | 304 lbs. | 147 lbs. | 109 lbs. |
| 8'0" | x 8'0" (†) | 1¾" | 4 | 4 | 348 lbs. | 170 lbs. | 127 lbs. |
| 8'0" | x 10'0" (*) | 1¾" | 5 | 4 | 440 lbs. | 225 lbs. | 155 lbs. |
| 9'0" | x 8'0" (*) | 1¾" | 4 | 6 | 416 lbs. | 189 lbs. | 146 lbs. |
| 9'0" | x 9'0" (*) | 1¾" | 5 | 6 | 452 lbs. | 236 lbs. | 171 lbs. |
| 9'0" | x 10'0" (*) | 1¾" | 5 | 6 | 477 lbs. | 256 lbs. | 180 lbs. |
| 9'0" | x 12'0" (*) | 1¾" | 6 | 6 | 587 lbs. | 276 lbs. | 221 lbs. |
| 10'0" | x 8'0" (*) | 1¾" | 4 | 6 | 443 lbs. | 199 lbs. | 160 lbs. |
| 10'0" | x 9'0" (*) | 1¾" | 5 | 6 | 483 lbs. | 219 lbs. | 184 lbs. |
| 10'0" | x 10'0" (*) | 1¾" | 5 | 6 | 560 lbs. | 291 lbs. | 195 lbs. |
| 10'0" | x 12'0" (*) | 1¾" | 6 | 6 | 654 lbs. | 351 lbs. | 235 lbs. |
| 12'0" | x 12'0" | 1¾" | 8 | 6 | 851 lbs. | 431 lbs. | 298 lbs. |
| 14'0" | x 6'9" | 1¾" | 4 | 8 | 563 lbs. | 270 lbs. | 200 lbs. |
| 14'0" | x 7'0" | 1¾" | 4 | 8 | 568 lbs. | 276 lbs. | 204 lbs. |

Doors marked (†), shipment immediately on receipt of order.
Doors marked (*), shipment three days after receipt of order.
All other doors, shipment ten days after receipt of order.

We can furnish doors in any size up to and including 14 feet in width and 10 feet in height or 15 feet in width and 8 feet in height.

§For residential work, inasmuch as the highest of pleasure cars is now 5 feet 9 inches, we strongly recommend the 8 feet wide x 6 feet 6 inches high size door.

BUILDERS' HARDWARE

No. 900 National Door Set

A Few Typical Installations



Doors 8 feet wide by 6 feet 6 inches high



Doors 8 feet wide by 7 feet high



Doors 8 feet wide by 8 feet high



Door 14 feet wide by 7 feet high



An installation of thirty No. 900 Door Sets at Bellevue, Pa.

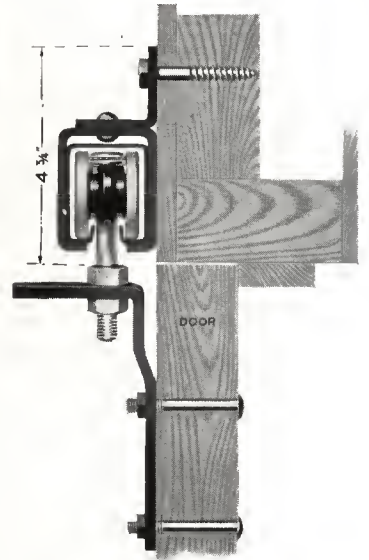
Swivel Trolley Garage Hangers



No. 853S
Swivel Trolley Garage
Hanger



No. 853
Swivel Trolley Garage
Hanger



Sectional view No. 853 Swivel
Trolley Hanger and No. 51
Trolley Rail

The wheels are formed of heavy-gauge pressed steel, and run perfectly true and easy in the rail, as the holes for axles are accurately punched in the center.

The wheels have roller bearings and are galvanized to prevent rust.

The truck is a gray iron casting with a hub approximately $\frac{1}{4}$ inch longer than is customarily used. This gives more bearing surface and permits the use of longer roller bearings. The axle being longer, the wheels are farther apart and cannot bind against the upturned flanges of the rail, eliminating friction.

The upright bearing bolt is of one piece, the head being formed as a part of the bolt itself. This bolt revolves on ball bearings and permits the operation of the doors with the least possible effort.

The adjustment feature to raise or lower the door is very simple and effective. The upright bearing bolt is flattened on two sides to prevent its revolving in the lateral adjusting slot of Hanger. It can be adjusted with one wrench.

No. 853S Swivel Trolley Garage Hanger, for use on doors requiring special offset.

When furnished separately, the Hangers are packed one in a box with bolts and two end-caps for No. 51 Rail.

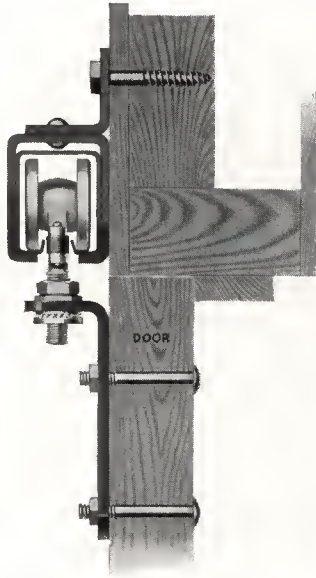
Weight, with bolts, $3\frac{1}{2}$ pounds each.

No. 855½ Swivel Trolley Hanger

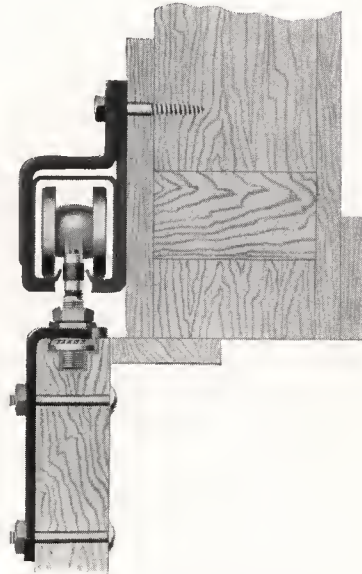
Single Wheel



No. 855½ Swivel
Trolley Hanger



Sectional view showing door
hung to set in against stop.



Sectional view showing door
hung to slide past casing.

For use with No. 812 and No. 813 Trolley Garage Sets, as illustrated on pages 54 and 55.

View at the right shows door hung to slide past casing.

View at the center shows drop strap reversed for doors hung to set in against stop.

Hangers are packed two in a box with bolts.

Weight, two only, 5½ pounds.

Table of Contents

| Garage Set Number | No. 29 Latch | No. 27 Latch | 4" x 4" No. 505 Jap. Butt | 8" No. 840 Hinge | 10" No. 840 Hinge | No. 841 Hinge | No. 842 Hinge | No. 846 Hinge | No. 847 Hinge | No. 820 Chain Bolt | No. 821 Chain Bolt | No. 830 Foot Bolt | No. 5 Pull | No. 40 Padlock Eyes |
|----------------------|-----------------|-----------------|---------------------------------|------------------------|-------------------------|------------------|------------------|------------------|------------------|-----------------------|-----------------------|----------------------|---------------|------------------------|
| 8" 800 | 1 | | | 3 pr. | | | | | | | | | | |
| 10" 800 | 1 | | | | 3 pr. | | | | | | | | | |
| 800A | 1 | | | | | 3 pr. | | | | | | | | |
| 800B | 1 | | | | | | 3 pr. | | | | | | | |
| 10" 801 | | 1 | | | 3 pr. | | | | | | | | | |
| 801A | | 1 | | | | 3 pr. | | | | | | | | 1 pr. |
| 801B | | 1 | | | | | 3 pr. | | | | | | | 1 pr. |
| 803 | 1 | | 1½ pr. | | | | | | 1½ pr. | | | | 2 | 1 pr. |
| 804 | | | 6 pr. | | | | | | | | | | 2 | 1 pr. |
| 804A | | | 3 pr. | | | 3 pr. | | | | | 2 | 2 | 2 | 1 pr. |
| 804B | | | 3 pr. | | | | 3 pr. | | | | 2 | 2 | 2 | 1 pr. |
| 805 | 1 | | 4½ pr. | | | | | | | | 2 | 2 | 2 | 1 pr. |
| 805A | 1 | | 1½ pr. | | | 3 pr. | | | | | 1 | 1 | 1 | 1 pr. |
| 805B | 1 | | 1½ pr. | | | | 3 pr. | | | | 1 | 1 | 1 | 1 pr. |
| 805½ | 1 | | 1½ pr. | | | | | | 3 pr. | | 1 | 1 | 1 | 1 pr. |
| 806 | | 1 | 4½ pr. | | | | | | | | 1 | 1 | 1 | 1 pr. |
| 806A | | 1 | 1½ pr. | | | 3 pr. | | | | | 1 | 1 | 1 | 1 pr. |
| 806B | | 1 | 1½ pr. | | | | 3 pr. | | | | 1 | 1 | 1 | 1 pr. |
| 806½ | | 1 | 1½ pr. | | | | | | 3 pr. | | 1 | 1 | 1 | 1 pr. |
| 812 | 1 | | 1½ pr. | | | | | | | | 1 | 1 | 1 | 1 pr. |
| 813 | | 1 | 1½ pr. | | | | | | 1½ pr. | | | | 2 | 1 pr. |
| 814 | | | | | | | | | 1½ pr. | | | | 2 | 1 pr. |
| 815 | 1 | | 1½ pr. | | | 3 pr. | | | | | 1 | 1 | 1 | 1 pr. |
| 816 | | 1 | 1½ pr. | | | 3 pr. | | | | | 1 | 1 | 1 | 1 pr. |
| 817A | | | | | | 1½ pr. | | 1½ pr. | | | 1 | 1 | 2 | 1 pr. |
| 817B | | | | | | | 1½ pr. | 1½ pr. | | | 1 | 1 | 2 | 1 pr. |
| 817X | | | | | | 3 pr. | | 3 pr. | | 2 | | 2 | 2 | 1 pr. |

If a No. 810 Garage Door Holder is desired packed with any of the No. 800 or No. 801 type sets, designate it by adding an "H" to the catalog number, as 10-inch No. 800H or No. 801AH.

Table of Contents

| Garage Set Number | No. 27 Latch | No. 846 Hinge | 12" No. 843 Hinge | No. 821 Chain Bolt | No. 835 Cane Bolt | No. 7 Pull | No. 40 Padlock Eye | No. 854 Hanger | No. 856 Hanger | A-41 Bracket |
|----------------------|-----------------|------------------|-------------------------|-----------------------|----------------------|---------------|-----------------------|-------------------|-------------------|-----------------|
| 823 | 1 | 2 pr. | 2 pr. | | | 2 | | | | |
| 824 | | | | | | | | | 3 | |
| 826 | 1 | 2 pr. | 4 pr. | 1 | 1 | 1 | 1 pr. | 1 | | 1 |
| 827C | | 2 pr. | 2 pr. | 1 | 1 | 2 | 1 pr. | 1 | | 1 |

BUILDERS' HARDWARE

of Garage Sets

| No. 850 Swivel Hanger | No. 851 Swivel Hanger | No. 852 Swivel Hanger | No. 853 Swivel Hanger | No. 855 Swivel Hanger | A-51 Bracket | B-51 Bracket | C-51 Bracket | F-51 Bracket | G-51 Bracket | No. 51 Trolley Rail | 51-16 Trolley Curve | No. 51 End-caps | "Braced" Rail | "Braced" Rail Curve | No. 197 Turnbuckle | No. 20 Floor Guide | Weight per Set, Lbs. | Garage Set Number |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------|--------------|--------------|--------------|--------------|---------------------|---------------------|-----------------|---------------|---------------------|--------------------|--------------------|----------------------|-------------------|
| | | | | | | | | | | | | | | | | | 12 1/4 | 8" 800 |
| | | | | | | | | | | | | | | | | | 17 3/4 | 10" 800 |
| | | | | | | | | | | | | | | | | | 14 | 800A |
| | | | | | | | | | | | | | | | | | 14 | 800B |
| | | | 3 | | | | | | | | | | | | | | 20 1/2 | 10" 801 |
| | | | | | | | | | | | | | | | | | 16 3/4 | 801A |
| | | | | | | | | | | | | | | | | | 16 3/4 | 801B |
| | | | | | | | | | | | | | 14 ft. | | | 1 | 36 | 803 |
| | | 2 | | | | | | | | | | | 12 ft. | | | | 29 3/4 | 804 |
| | | 2 | | | | | | | | | | | 12 ft. | | | | 36 1/2 | 804A |
| | | 2 | | | | | | | | | | | 12 ft. | | | | 37 | 804B |
| 1 | | | | | | | | | | | | | 6 ft. | | | | 18 3/4 | 805 |
| 1 | | | | | | | | | | | | | 6 ft. | | | | 25 1/4 | 805A |
| 1 | | | | | | | | | | | | | 6 ft. | | | | 25 1/4 | 805B |
| 1 | | | | | | | | | | | | | 6 ft. | | | | 21 | 805 1/2 |
| 1 | | | | | | | | | | | | | 6 ft. | | | | 21 | 806 |
| 1 | | | | | | | | | | | | | 6 ft. | | | | 27 3/4 | 806A |
| 1 | | | | | | | | | | | | | 6 ft. | | | | 27 3/4 | 806B |
| 1 | | | | | | | | | | | | | 6 ft. | | | | 24 | 806 1/2 |
| | | | | 3 | | | | 7 | 2 | 14 ft. | 1 | 2 | | | | | *24 1/2 | 812 |
| | | | | 3 | | | | 7 | 2 | 14 ft. | 1 | 2 | | | | | *27 | 813 |
| | | | 1 | | 1 | 2 | 1 | | | | | 2 | | | | | *14 | 814 |
| | | | 1 | | 1 | 1 | 1 | | | 6 ft. 2 in. | | 2 | | | | | *27 | 815 |
| | | | 1 | | 1 | 1 | 1 | | | 6 ft. 2 in. | | 2 | | | | | *29 3/4 | 816 |
| | | | 1 | | 1 | 2 | 1 | | | 9 ft. | | 2 | | | 1 | | *26 | 817A |
| | | | 1 | | 1 | 2 | 1 | | | 9 ft. | | 2 | | | 1 | | *26 1/4 | 817B |
| | | | 2 | | 2 | 2 | 2 | | | 18 ft. | | 4 | | | | | *49 | 817X |

*Weight does not include rail.

All No. 800 and No. 801 type sets are furnished regularly in the following finishes: Japan, Sherardized and Galvanized. Nos. 803, 804, 805 and 806 type sets are furnished in Japan only.

of Heavy Garage Sets

| B-41 Bracket | C-41 Bracket | F-41 Bracket | G-41 Bracket | 41-14 Rail | 41-14 End-caps | No. 197 Turnbuckle | No. 20 Floor Guide | 27" Radius Curve, No. 41-14 Rail | Weight per Set, Lbs. | Garage Set Number |
|--------------|--------------|--------------|--------------|------------|----------------|--------------------|--------------------|----------------------------------|----------------------|-------------------|
| 2 | | 9 | 2 | 20 ft. | 2 | | 1 | 1 | 150 | 823 |
| 2 | 1 | | | | | | | | 48 | 824 |
| 2 | 1 | | | 8 ft. | 2 | | | | 111 | 826 |
| 2 | 1 | | | 11 ft. | 2 | 1 | | | 106 | 827C |

Trolley Rail Brackets



No. C-51
End Bracket

No. B-51
Intermediate Bracket

No. A-51
Center Bracket

Brackets illustrated are packed with Garage Sets Nos. 814, 815, 816 and 817.

The extension arm of the B-51 and C-51 Brackets is made of $\frac{3}{16}$ x $1\frac{1}{4}$ -inch best quality steel, riveted to the bracket proper with special "bridge truss rivets."

All B-51 Brackets have set screws to hold rail in position.

Frequently the headroom over the door is not sufficient to permit the use of a 2 x 8 header. In such cases a 2 x 6 header must be used. These brackets can be attached to the narrower header.

The holes in the bracket plate are staggered so the lag-screws enter different grains in the wood. They are above the center of the bracket plate. This construction provides greater carrying capacity.

The lower part of the bracket plate serves the same purpose as the brace on our Braced Rail and aids in holding the bracket rigidly in place.

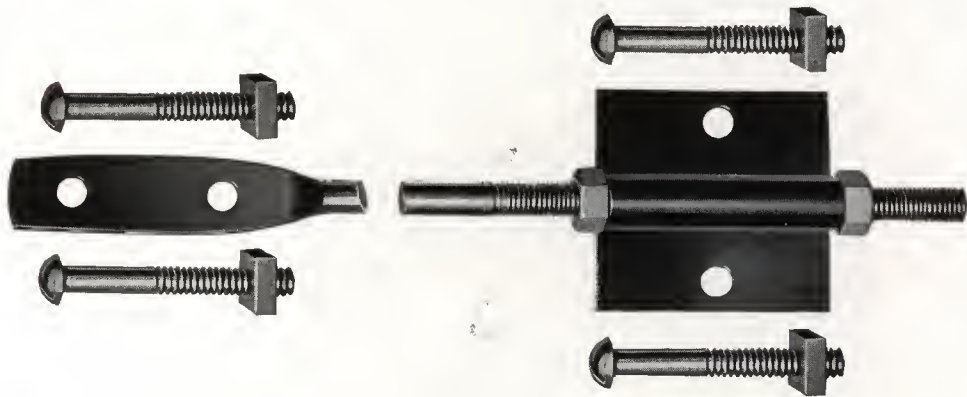
The adjusting bolt attaching the rail bracket to the extension arm is $\frac{1}{2}$ inch in diameter, with S. A. E. threads.

Weights: No. A-51, 1 pound; No. B-51, 2 $\frac{3}{4}$ pounds; No. C-51, 3 $\frac{1}{4}$ pounds.

Packed with $\frac{3}{8}$ x 2-inch lag-screws.

The A-41, B-41 and C-41 Brackets (see page 61) are the same as above, except that they are for use with the No. 41 Rail and are much heavier.

No. 197 Garage Door Turnbuckle



This Turnbuckle is made especially for use with the No. 817 Garage Set, but it is also sold separately.

It should be used on all doors, as it will prevent sagging and keep them in alignment.

It is made of $\frac{5}{16}$ -inch steel and is attached to the door with four $\frac{1}{4} \times 2\frac{1}{4}$ -inch cadmium-plated bolts.

The adjustment device locks securely. Vibration cannot loosen it.

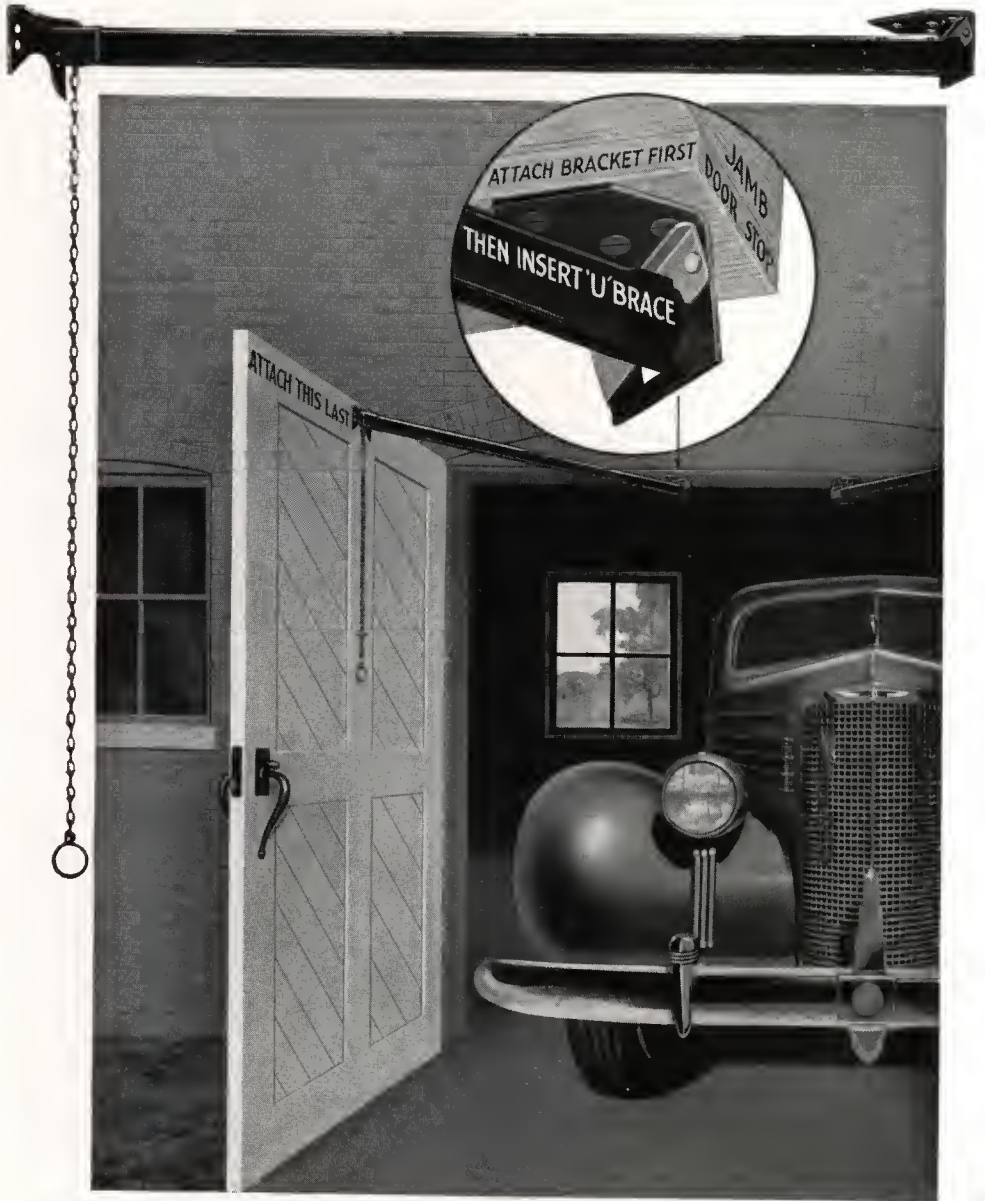
Furnished in Japan finish only. One dozen 60-inch in a wooden box. All other sizes one dozen in a bundle.

| Size | Weight per Dozen Pounds | Size | Weight per Dozen Pounds |
|-----------|----------------------------|------------|----------------------------|
| 60 inches | 23 | 96 inches | 31 |
| 72 inches | 26 | 108 inches | 33 |
| 84 inches | 28 | 120 inches | 36 |

(For Screen Door Turnbuckles, see page 139.)

No. 810 Garage Door Holder

(Patented)



(Description on opposite page.)

No. 810 Garage Door Holder

Garage doors constructed to swing on hinges are rendered harmless when equipped with this Garage Door Holder. It holds the doors securely open and prevents them from damaging the car when entering or leaving the garage.

The Holder has a rigid, U-shaped steel arm 32 inches long.

A swivel joint allows the Holder to fold back out of the way along the head jamb when the door is closed.

When the door is opened the long, heavy U-shaped arm slides through the steel catch-plate and engages at the top instead of at the bottom of the bracket. Gives greater holding power.

To close the door, a light pull on the safety chain operates the trip-bar and releases the Holder.

The complete Holder is made throughout of heavy-gauge steel and is amply strong for any door.

Packed one pair in a package, complete with screws. Six pairs in a case.

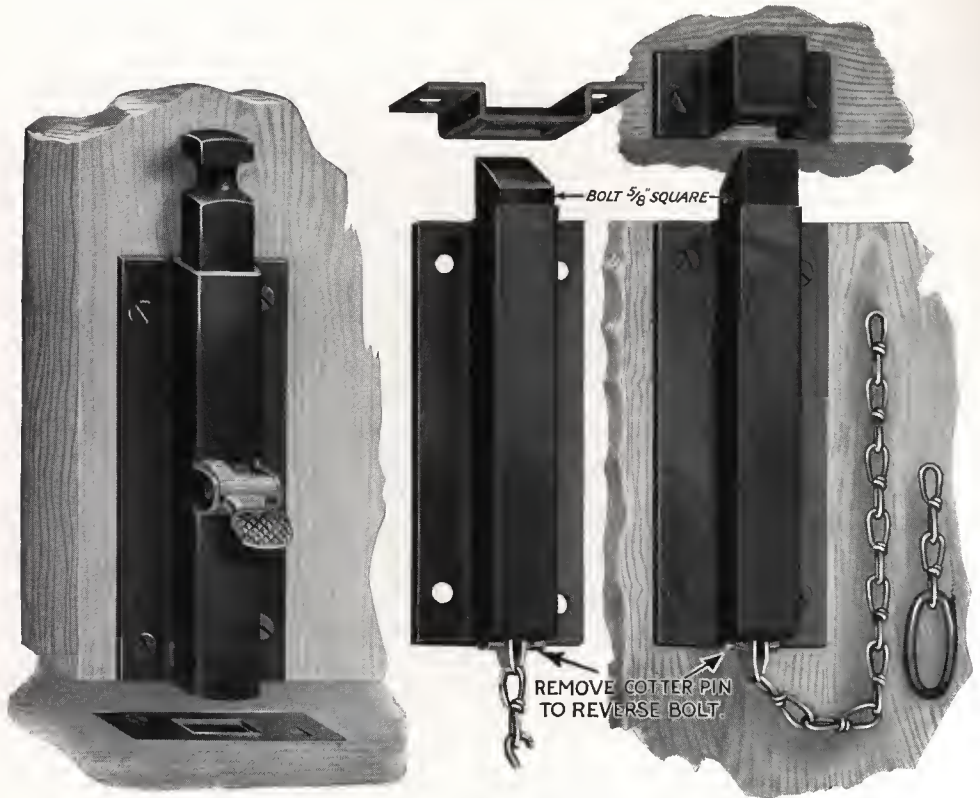
Packed also with swinging garage door sets when so desired. (See pages 42 and 43.)

Finished as follows: Japan, Dead Black Japan, Galvanized.

Weight, per pair, $7\frac{3}{4}$ pounds.

Six pairs in a case, weight, 56 pounds.

Foot and Chain Bolt Set



No. 830 Foot Bolt

No. 820 Chain Bolt

The cases of these bolts are made of wrought steel. The bolts are extra heavy malleable iron, being $\frac{5}{8}$ inch square.

Foot Bolt—The lever to raise the bolt has a positive action. The bolt is held in place when raised by an oil-tempered steel friction spring. Cannot get out of order.

Chain Bolt—Equipped with high-grade safety chain which cannot pull apart. It is reversible by removing cotter-pin and turning bolt. Plates have rounded top, giving a roller-shaped bearing on which bolts work easily.

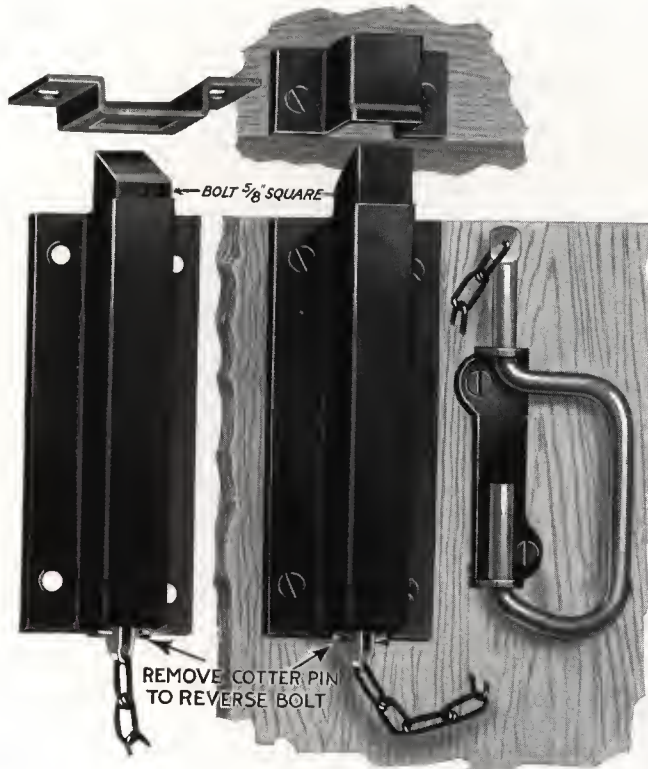
Packed one set in a box, one No. 820 and one No. 830, with 1-inch screws, staple for chain guide and two plates for head jamb, one for doors swinging in and one for doors swinging out. Three dozen sets in a case. Packed separately, when so ordered, one-half dozen in a box. Six dozen in a case. Any finish desired.

Weight, per dozen sets, one each, 22 pounds.

No. 820—Weight, per dozen, 10½ pounds.

No. 830—Weight, per dozen, 11½ pounds.

No. 821 Chain Bolt
(Patented)



Construction the same as No. 820 Chain Bolt on page 76, except a handle in place of the ring on the chain.

Any finish desired. For list of finishes, see page 210.

Packed one-half dozen in a box, with 1-inch screws and two plates for head jamb, one for doors swinging in and one for doors swinging out.

No. 821 only, weight, per dozen, 13 pounds.

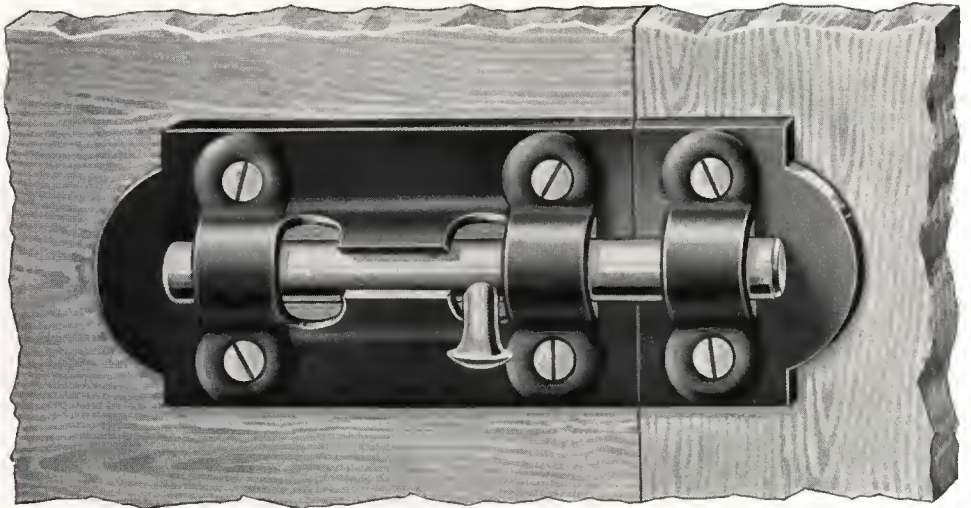
Six dozen in a case.

Packed also in sets with No. 830 Foot Bolt.

Weight, per dozen sets, one each, 24 $\frac{1}{4}$ pounds.

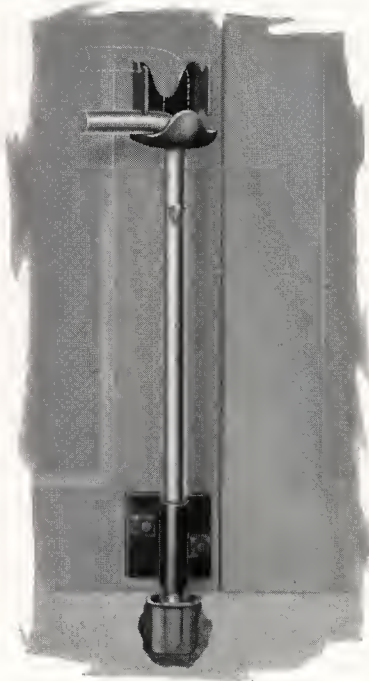
Three dozen sets in a case.

No. 834 Barrel Bolt



Made of cold rolled steel. Packed one dozen in a box, with oval-head screws. Any finish desired. For list of finishes, see page 210.

| Size Inches | Number Screws | Size Screws (Oval-head) | Weight per Dozen Pounds |
|-------------|---------------|-------------------------|-------------------------|
| 2½ | 6 | ⅝ x 4 | 1½ |
| 3 | 7 | ⅝ x 5 | 2½ |
| 4 | 7 | ¾ x 6 | 3 |
| 5 | 7 | ¾ x 7 | 5 |
| 6 | 9 | ¾ x 7 | 6 |



No. 835 Self-Locking Cane Bolt (Patented)

This is the only self-locking Cane Bolt on the market. It can be used either as a top or a bottom bolt or it can be applied sideways on swinging doors.

The bolt is made of ⅝-inch high-grade drawn steel and is cadmium-plated for rust-proofing.

The barrel, through which the bottom of the bolt slides, is attached to the door with two ⅝ x 2¼ bolts.

Made in two sizes, 18-inch and 24-inch.

Packed one-half dozen in a box, with ⅝ x 2¼ bolts, six floor sockets and one flat strike.

Weight, per dozen:

18-inch, 31¾ pounds; 24-inch, 43½ pounds.

Cane Bolts

No. 835½

Same size and finish as No. 835 Cane Bolt (see page 78) but is adjustable for length of throw.

Made in 18-inch size only. Packed ½ dozen in a box, with $\frac{5}{16}$ x $2\frac{1}{4}$ -inch bolts.

Weight, per dozen, 32 pounds.



No. 835½ Cane Bolt



No. 836 Cane Bolt

No. 836

A small size Cane Bolt made in 12-inch size only.

Packed one dozen in a box, with $1\frac{1}{4}$ x 10 flat-head Sherardized screws.

Weight, per dozen, 14 pounds.

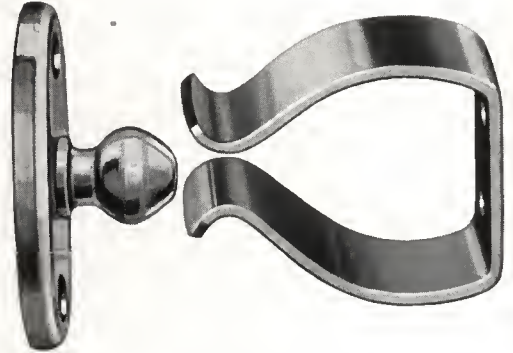
No. 711 Friction Catch

Made entirely of No. 2 temper steel. Attach with round-head screws.

Packed one dozen in a box, with 1x7 oval-head screws.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen,
2³/₄ pounds.



No. 40 Padlock Eyes

A convenient device for locking garage, barn or shed doors.

Mortised into edge of door, screws are concealed, preventing their removal when doors are closed.

Furnished in Japanned, Sherardized and Hot Galvanized finishes.

Packed one pair in an envelope, with screws. One dozen pairs in a box.

Weight, per dozen pairs, 2¹/₂ pounds.



Cut half size

Adjustable Floor Guides

Can be furnished for single doors or for two or three parallel doors.

Creosote blocks are furnished for attaching to concrete floors.

Adjustable for doors from 1¹/₄ to 3 inches thick.

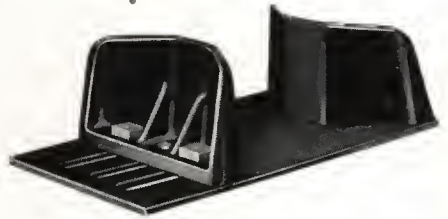
Japanned and Hot Galvanized finishes.

Packed two in a box.

No. 20 —For single doors, weight, two only, 4¹/₂ pounds.

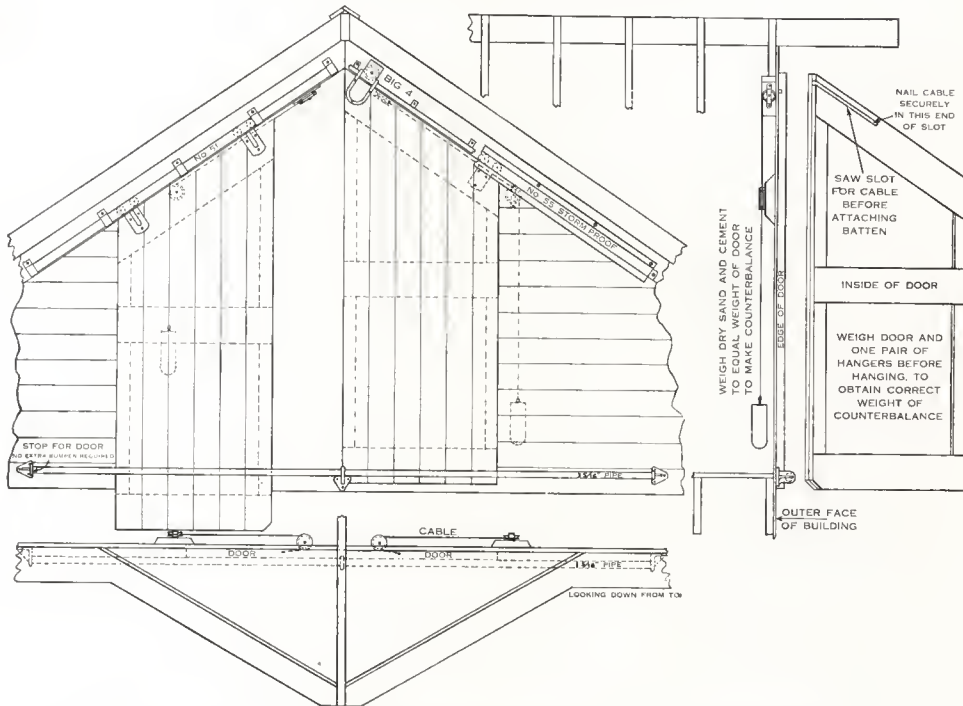
No. 20-2—For double doors, weight, two only, 6¹/₂ pounds.

No. 20-3—For triple doors, weight, two only, 7⁵/₈ pounds.



No. 10 Gable Door Set

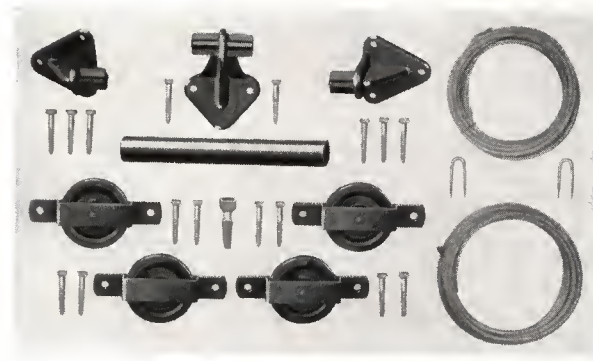
For Sliding Doors of Hay Barns



Any National Hanger and Rail Combination can be used in connection with this set.

The end brackets that hold the pipe and keep the doors from swinging out at the bottom act as bumpers for the doors when open. No other bumpers required. These brackets are extra heavy and are attached with three lag-screws.

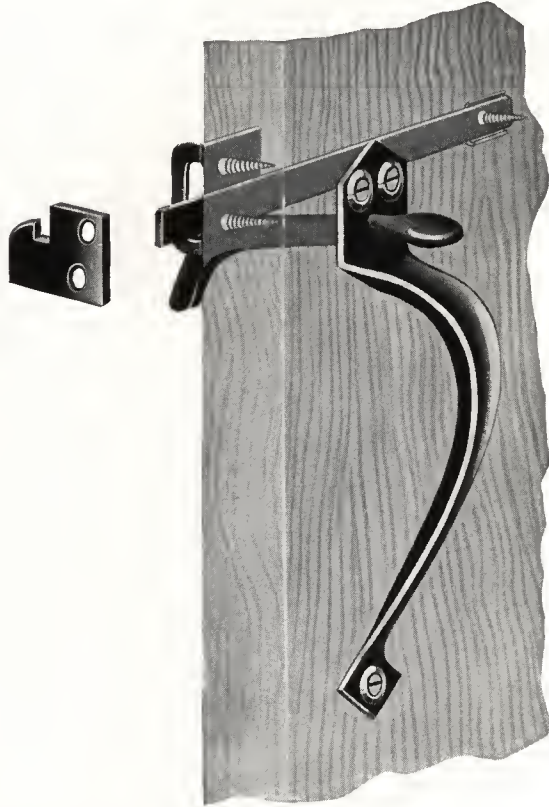
This set is for a 10-foot opening and consists of the following items:



- 2—20-foot pieces $\frac{3}{16}$ -in. Steel Cable (40 feet in all).
 - 2—10-foot pieces $1\frac{1}{2}$ -in. pipe (20 feet in all).
 - 2—End Brackets for pipe.
 - 1—Center Bracket for pipe.
 - 4—Iron Pulleys with steel frame, Japanned, complete with lag-screws.
 - 2—2-inch Staples.
 - 1 only—Socket Wrench.
- Weight, per set, 34 pounds.

No. 24 Cottage Door Latch

Japanned



This Latch is made especially for light-weight doors, such as screen doors, cellar doors, storm doors, etc.

It is made entirely of steel.

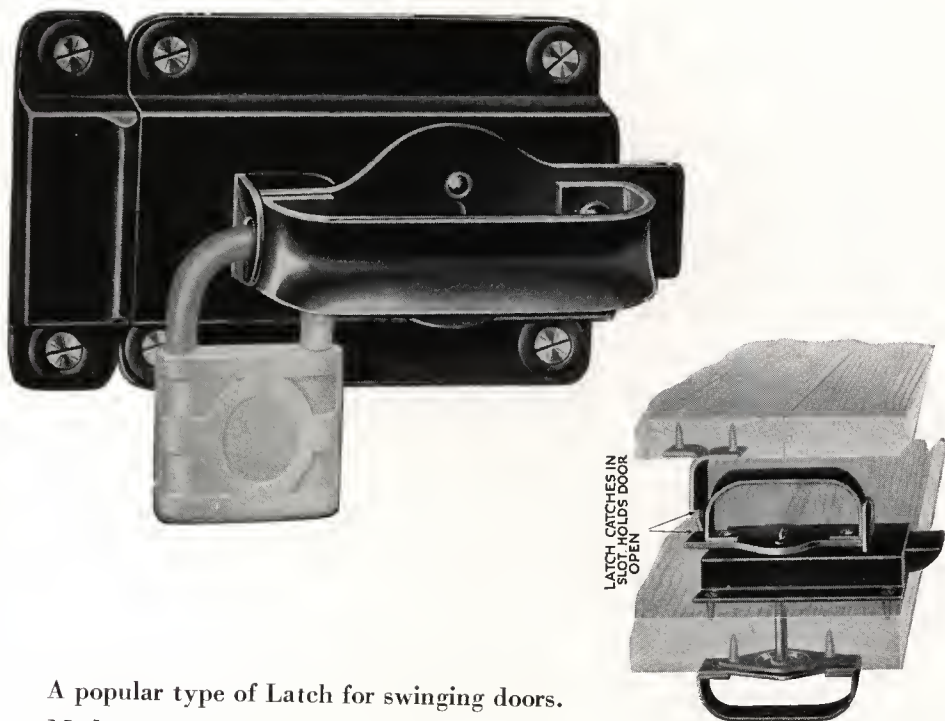
The long, graceful lines of the handle are out of the ordinary in this type of Latch, giving it a distinctive appearance.

Finishes: Japan, Dead Black Japan, Cadmium and Hot Galvanized.

Packed one in a box, with screws. Six dozen in a case.

Weight, per dozen, 4½ pounds.

No. 25 Swinging Door Latch



A popular type of Latch for swinging doors.

Made entirely of steel.

The large bolt is cadmium-plated and has a rounding face which works easily on the roller-shaped edge of the strike.

Adjustable for doors $\frac{3}{4}$ inch to $2\frac{1}{4}$ inches thick.

Construction prevents flattening of handle when door swings back against building.

Handle is placed back of center of case—prevents injury to hand when opening or closing door.

Strike has wide opening, which insures a positive lock should the door sag.

Illustration shows how padlock can be inserted to lock Latch.

Spring made of music wire.

Easily installed—bore a $\frac{1}{2}$ -inch hole for the handle and insert screws.

Finishes: Japan, Cadmium and Hot Galvanized.

Packed one in a box, with screws and catch to hold door open. Five dozen in a case.

Weight, per dozen, 24 pounds.

No. 27 Swinging Door Latch

Here's the aristocrat of Door Latches.

The handles, one on either side of the door, with their long, graceful lines, resemble those of the higher-grade door locks, and will improve the appearance of any door.

The mechanism is simplicity itself. No complicated parts to get out of order. Does its work easily and effectively.

Reversible for right- or left-hand door.

Adjustable for doors $1\frac{1}{8}$ to $2\frac{1}{4}$ inches thick.

Packed one complete Latch, with screws, in a neat, strong box. One dozen in a case.

Finished regularly as follows: Japan, Dead Black Japan, Sherardized and plated any finish, Cadmium and Hot Galvanized.

The entire latch is rust-proofed in all finishes.



Weight, per dozen,
46 pounds.

No. 28 "Washburne" Sliding Door Latch

Japanned



This Latch is made entirely of steel, and is adapted for use on either right- or left-hand sliding doors.

It is so constructed that it is flush with the door on the inside, so that the door can be opened full width.

A new style of plate staple is supplied which permits placing the Latch so that the bar extends over edge of door only $\frac{3}{4}$ inch.



Section of door showing "Washburne" Latch attached. Note that the pin is flush with inside of door.

The small hole through which pin extends is bored with $\frac{1}{2}$ -inch bit; the large holes for handhold with a 1-inch bit, through inside thickness of lumber only.

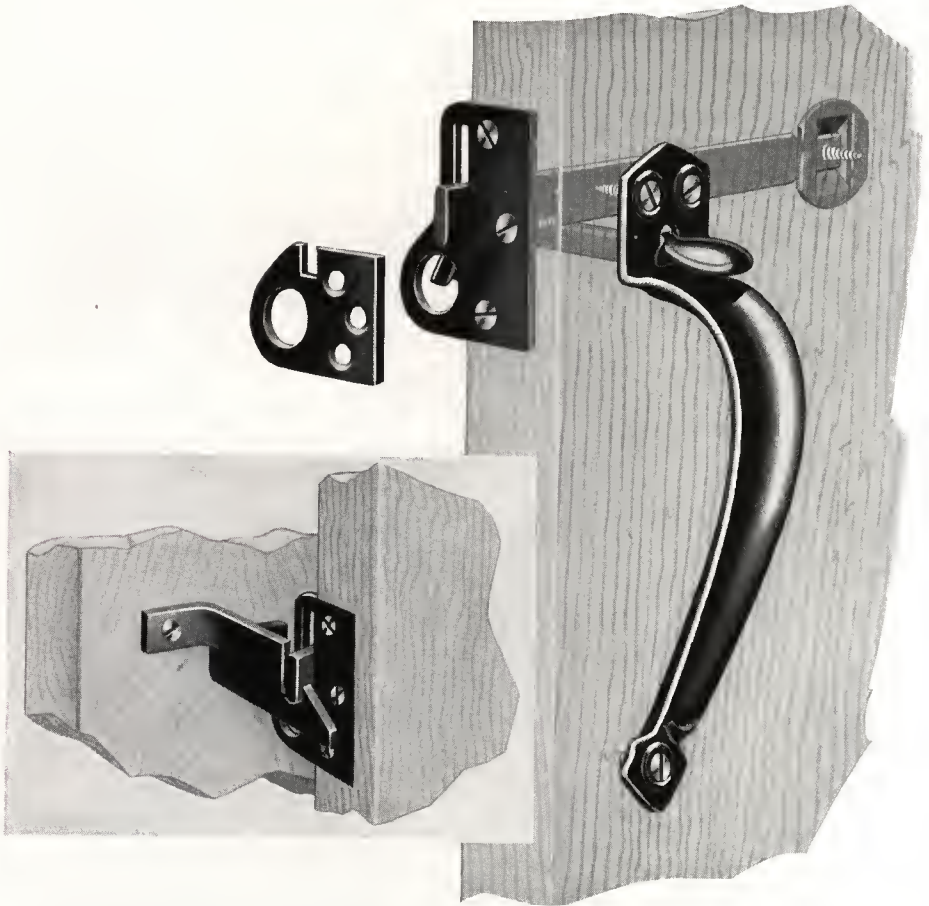
Envelope with screws packed with each Latch.

Packed one-half dozen in a box. Six dozen in a case.

Weight, per dozen, 10 pounds.

No. 29 All-Steel Latch

Japped



This is our idea of a perfect Barn and Garage Door Latch for swinging doors. As the name implies, it is made entirely of steel.

The door can be locked by inserting shackle of padlock through slot in strike and slide.

Each Latch is supplied with a catch to hold the door open. (See smaller illustration above.)



Method of packing

Flush strikes can be furnished when ordered.

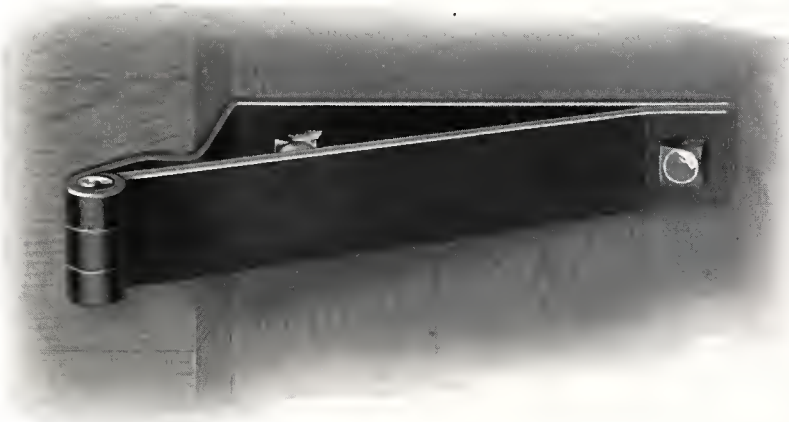
Envelope with screws packed with each Latch.

Furnished regularly as follows: Japan, Cadmium and Hot Galvanized.

Packed one in a box. (See illustration at left.)
Three dozen in a case.

Weight, per dozen, 13¼ pounds.

No. 16 Barn Door Bumper



A good, substantial Barn Door Bumper, placed in the proper position on the building, is very essential in securing the best results with sliding barn door hangers.

Bumpers made of wood do not stand the hard usage and soon become of no value.

To meet the demand for a Barn Door Bumper that will stand the strain, we have placed on the market the one illustrated above.

It is made of $1\frac{1}{2}$ x $\frac{5}{32}$ -inch steel.

The Bumper is attached to the building 3 inches above the center of the door with two 2 x $\frac{7}{16}$ -inch lag-screws.

The construction of this Bumper is such that it holds the door close against the building.

It has a hinged joint, which provides a convenient method for inserting the first lag-screw.

This Bumper will save the time and labor required to make an inferior article of wood, and one should be used with every pair of hangers.

Packed two in a box, with lag-screws.

Weight, per dozen, 20 pounds.

No. 17 Barn Door Bumper



Here is a strong, sturdy pressed-steel Barn Door Bumper. The two extra heavy embossed ribs add materially to the strength of the bumper. Simple in construction and easy to attach.

They come packed one dozen in a box, with 2 x $\frac{5}{16}$ -inch lag-screws. Finishes: Japan and Hot Galvanized.

Weight, per dozen, 9½ pounds.

Bar Holders

For use in holding garage doors shut with a wooden bar. Opening suitable for 2x4.

Made very heavy from 1½ x ¼-inch hot rolled steel.

Packed one dozen in a box, with screws.

Finishes: Bright Steel, Japan and Hot Galvanized.

Weight, per dozen: No. 14, 10 pounds; No. 15, 10 pounds.



No. 14 Bar Holder



No. 15 Bar Holder

Stay Rollers



No. 18 Reversible and Adjustable—Cut one-half size

The embossed frame has double the space between screws of any other stay roller; hence has greater bracing strength, and screws will not pull out.

The 2-inch wheel has a rounded top, which prevents dirt from accumulating and clogging the wheel. Adjustment for doors up to 2½ inches.

Finishes: Japan and Hot Galvanized.

Weight, per dozen, 11 pounds.



No. 319 Heavy Duty—Cut one-half size

With ½-inch lag-screw and expansion shield. Cast-iron wheel, 2½-inch diameter.

Finishes: Japan and Hot Galvanized.

Weight, per dozen, 13¾ pounds.

Stay Rollers



No. 318 Heavy Duty—Cut one-half size

Steel frame, cast-iron wheel, $2\frac{1}{2}$ -inch diameter. Slot in frame provides adjustment for doors up to 3 inches. Reversible.

Finishes: Japan and Hot Galvanized.

Weight, per dozen, $28\frac{1}{2}$ pounds.



No. 320 Heavy Duty—Cut one-half size

Steel frame, cast-iron wheel, $3\frac{1}{2}$ -inch diameter. Slot in frame provides adjustment. Axle $\frac{5}{8}$ -inch diameter.

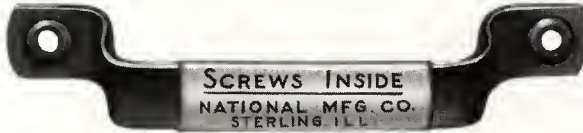
Finishes: Japan and Hot Galvanized.

Weight, per dozen, $45\frac{1}{2}$ pounds.

BUILDERS' HARDWARE

Door Pulls

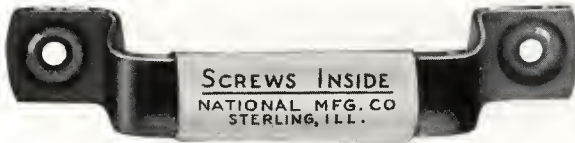
Made of Steel—Japanned



No. 4

Length, over all, 6 inches

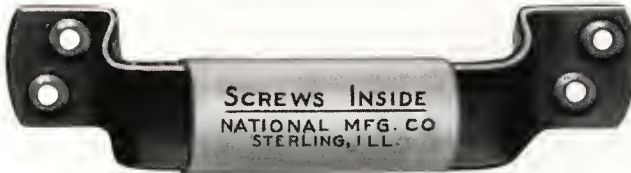
Weight, per dozen, 2½ pounds.



No. 5 Heavy

Length, over all, 6¾ inches

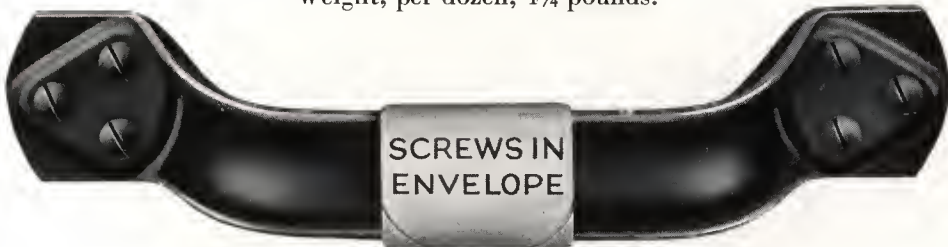
Weight, per dozen, 3¼ pounds.



No. 6 Extra Heavy

Length, over all, 6¾ inches

Weight, per dozen, 4¾ pounds.



No. 7 Extra Heavy

Length, over all, 10 inches

Weight, per dozen, 10¼ pounds.

Envelope with screws attached to each Pull.

Nos. 4, 5 and 6 packed one dozen in a paper box.

No. 7 packed one-half dozen in a paper box with 1½ x 12 oval-head screws.

No. 171 Pressed Steel Door Pull



Made of cold rolled steel.

Length, over all, 6½ inches.

Packed one dozen in a box, with 1 x 8 oval-head screws. Envelope with screws attached to each Pull.

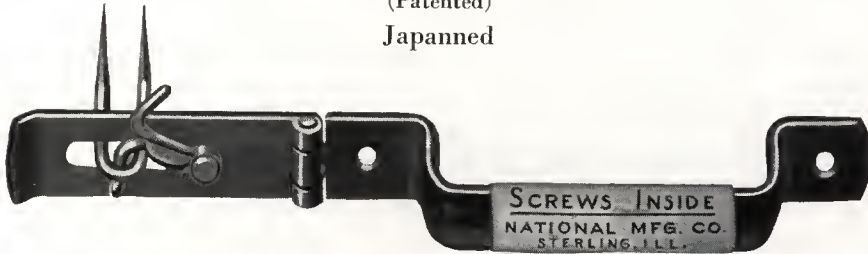
Any finish desired. For list of finishes, see page 210.

Weight, per dozen, 2¾ pounds.

BUILDERS' HARDWARE

Handle Hinge Hasp and Staple

(Patented)
Japanned

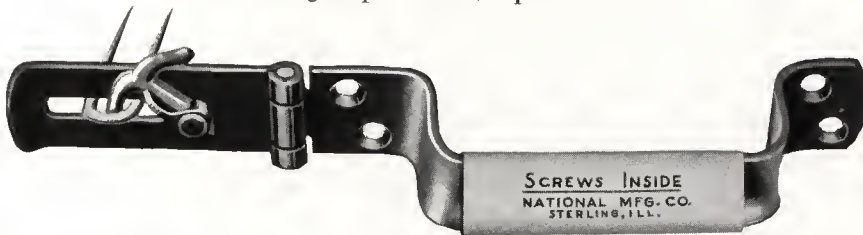


No. 2. With hook. Width, $1\frac{1}{8}$ inches.

Envelope with screws and staple attached to each Handle.

Packed one dozen in a box, twenty dozen in a case.

Weight, per dozen, 6 pounds.



No. 3. With hook. Width, $1\frac{3}{8}$ inches. Extra heavy. Has two screw-holes in each end.

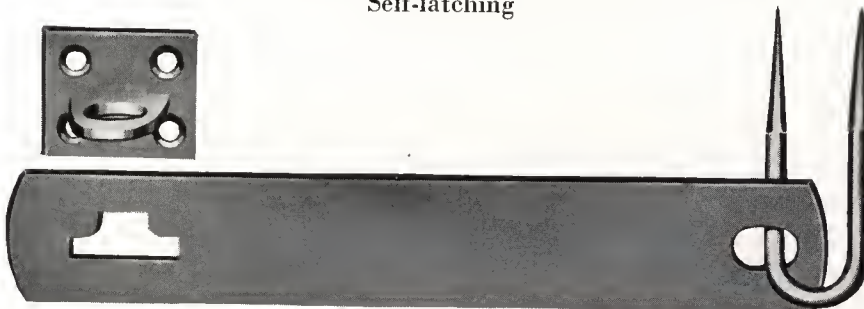
Envelope with screws and staple attached to each Handle.

Packed one dozen in a box, twelve dozen in a case.

Weight, per dozen, 8 pounds.

No. 35 Automatic Hasp and Staple

Self-latching



The screws are covered when Hasp is locked. Length, 8 inches.

Packed one dozen in a box, with screws and staples.

Weight, per dozen, $5\frac{1}{2}$ pounds.

Hasps and Staples



| Inches | Weight per Dozen Pounds |
|--------|-------------------------------|
| 5 | 2 |
| 6 | 2¼ |
| 7 | 2¾ |
| 8 | 3½ |
| 10 | 4 |

Packed two dozen in a box.

Hasps, Hooks and Staples



| Inches | Weight per Dozen Pounds |
|--------|-------------------------------|
| 5 | 2½ |
| 6 | 2¾ |
| 7 | 3¼ |
| 8 | 3¾ |
| 10 | 5½ |

Packed one dozen in a box.

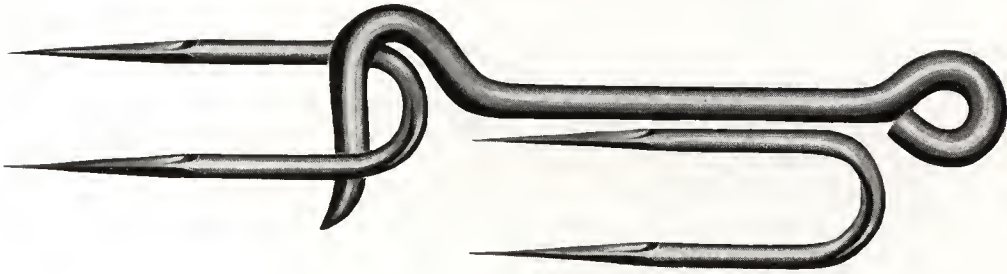
Extra Heavy

| Inches | Weight per Dozen Pounds |
|--------|-------------------------------|
| 8 | 6¼ |
| 10 | 8 |

Packed one dozen in a box.

BUILDERS' HARDWARE

Bright Wire Hooks and Staples



| Length Inches | Diameter Inches | Weight per Gross Pounds |
|------------------|--------------------|-------------------------------|
| 4 | 1/4 | 20 |
| 4 1/2 | 1/4 | 21 |

Extra Heavy

| Length Inches | Diameter Inches | Weight per Gross Pounds. |
|------------------|--------------------|--------------------------------|
| 5 | 5/16 | 34 |
| 6 | 5/16 | 37 1/2 |

Packed one-quarter gross in a box.

Steel Staples

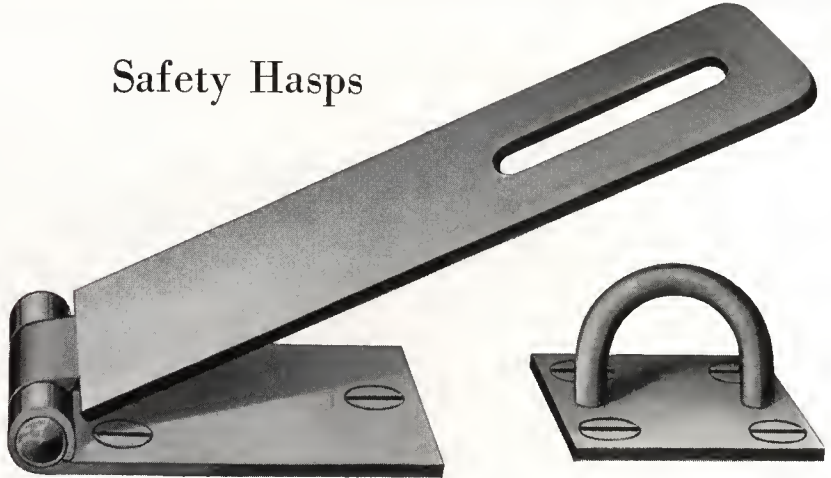


| Length Inches | Weight per Gross Pounds | Length Inches | Weight per Gross Pounds |
|------------------|-------------------------------|------------------|-------------------------------|
| 1 | 3/4 | 2 1/2 | 3 3/4 |
| 1 1/4 | 1 | 2 3/4 | 4 3/4 |
| 1 1/2 | 1 1/2 | 3 | 5 |
| 1 3/4 | 2 | 3 1/2 | 6 1/2 |
| 2 | 2 3/4 | 4 | 10 |
| 2 1/4 | 3 | | |

Sizes 1-inch to 3-inch are packed one gross in a box; 3 1/2-inch and 4-inch, one-half gross in a box.

Also packed one gross each size in a case; weight, 45 pounds.

Safety Hasps



No. 30—Without hook. Cut full size of $4\frac{1}{2}$ -inch

| Length of Strap Inches | Width of Joint Inches | Weight per Dozen Pounds |
|------------------------|-----------------------|-------------------------|
| $2\frac{1}{2}$ | 1 | $1\frac{1}{2}$ |
| $3\frac{1}{4}$ | $1\frac{1}{2}$ | 3 |
| $4\frac{1}{2}$ | $1\frac{1}{2}$ | 4 |
| 6 | $1\frac{3}{4}$ | 7 |

These Hasps are made with extra large slots cut the long way of the strap. This leaves more metal around the slot and gives extra strength.

The hook on the No. 31 is of special advantage, as it holds the door closed when padlock is not in use.

Any finish desired. For list of finishes, see page 210.

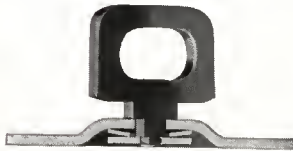
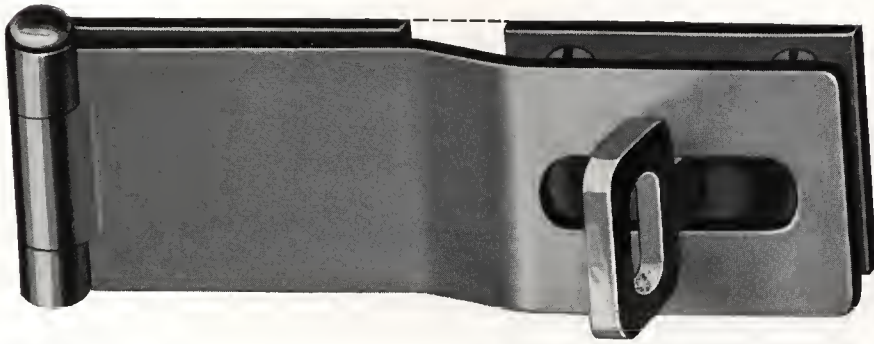
Packed one in a box, with screws.



No. 31—With hook. Cut full size of $4\frac{1}{2}$ -inch

| Length of Strap Inches | Width of Joint Inches | Weight per Dozen Pounds |
|------------------------|-----------------------|-------------------------|
| $4\frac{1}{2}$ | $1\frac{1}{2}$ | $4\frac{3}{4}$ |
| 6 | $1\frac{3}{4}$ | $7\frac{1}{2}$ |

No. 32 Swivel Staple Safety Hasp
(Patented)



Sectional view showing
spring washer

Made of cold rolled steel.

This Hasp is bent at such an angle that when the swivel staple is closed the door is held very securely, preventing rattling.

The swivel staple is securely attached to staple plate. A special spring washer between the staple plate and bottom washer holds the swivel staple in a fixed position at all times. Staple has eye for padlock.

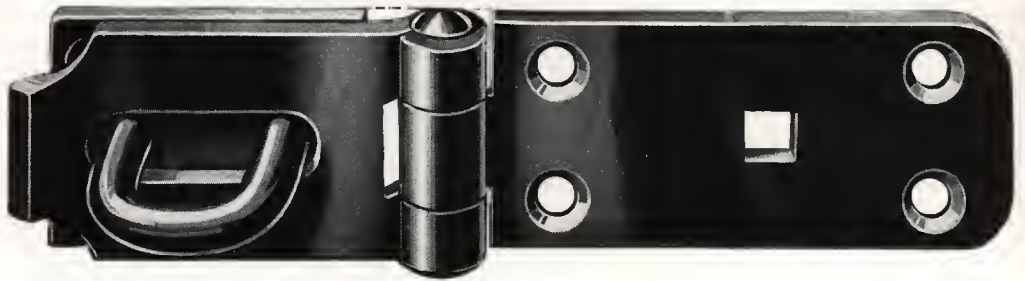
When Hasp is closed all screws are covered and cannot be removed.

Packed one complete Hasp in a box, with screws.

Any finish desired. For list of finishes, see page 210.

| Length of Strap Inches | Width of Joint Inches | Weight per Dozen Pounds |
|---------------------------|--------------------------|----------------------------|
| 3 $\frac{1}{4}$ | 1 $\frac{1}{2}$ | 4 |
| 4 $\frac{1}{2}$ | 1 $\frac{1}{2}$ | 4 $\frac{3}{4}$ |
| 6 | 1 $\frac{3}{4}$ | 7 $\frac{1}{4}$ |

No. 33 Extra Heavy Hinge Hasp



Especially adapted for use on heavy doors, such as front and rear store doors, warehouse doors, etc.

The Hasp is offset to allow for the thickness of the staple plate.

Hardened plate staple.

Besides the countersunk screw-holes it has a square hole for a carriage bolt, affording an unusually strong method of attaching.

Finishes: Bright Steel, Japan, Sherardized with Steel Pin, Sherardized with Brass Pin, Hot Galvanized with Brass Pin.

Packed one in a box, with screws.

Length, over all, $7\frac{1}{2}$ inches; width, $1\frac{3}{4}$ inches; thickness, $\frac{1}{64}$ inch.

Weight, per dozen, $11\frac{3}{4}$ pounds.

No. 34 Double-Hinge Safety Hasp



Made of cold rolled steel.

For use on lockers, tool chests, cabinets, boxes, etc.

All screws are covered when Hasp is locked.

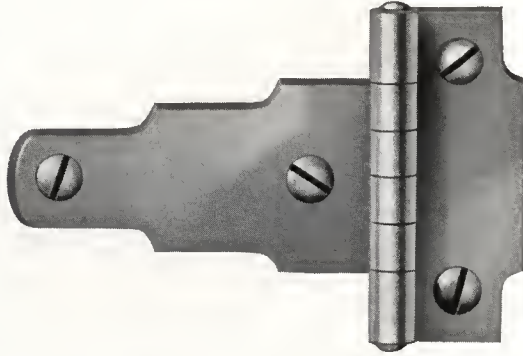
Packed one in a box, with $\frac{3}{4}$ x 7 screws.

Any finish desired. For list of finishes, see page 210.

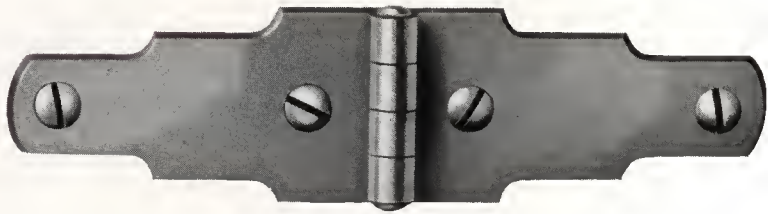
3 $\frac{1}{4}$ -inch, weight, per dozen, 4 $\frac{1}{2}$ pounds.

4 $\frac{1}{2}$ -inch, weight, per dozen, 6 pounds.

Light Ornamental Strap and "T" Hinges



No. 274 Light "T"



No. 270 Light Strap

Made of cold rolled steel, in 2-inch size only.

Packed with $\frac{5}{8}$ x 5 oval-head screws, one pair in an envelope, one dozen pairs in a box. Can also be furnished in bright steel, without screws.

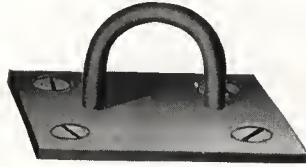
Any finish desired. For list of finishes, see page 210.

Weight, per dozen, with screws, $1\frac{3}{4}$ pounds.

Weight, per dozen, without screws, $1\frac{1}{2}$ pounds.

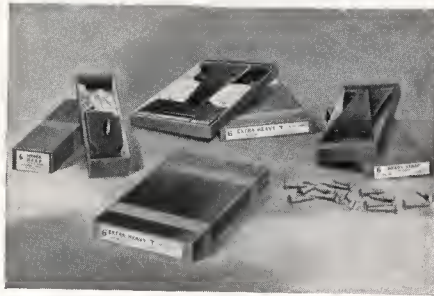
BUILDERS' HARDWARE

Plate Staples



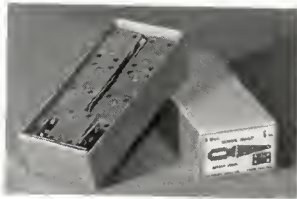
| Size of Plate Inches | Projection of Staple Inches | For Hasp Inches |
|-------------------------------------|--------------------------------|--------------------|
| $1\frac{1}{2} \times 1\frac{1}{4}$ | $\frac{9}{16}$ | 4 |
| $1\frac{3}{4} \times 1\frac{3}{8}$ | $\frac{5}{8}$ | 6 |
| $2\frac{1}{16} \times 1\frac{3}{8}$ | $\frac{3}{4}$ | 8 |

Hinge Hasps



Method of packing one pair in a box with screws

| Length of Strap Inches | Number of Hasps in Box | Number of Hasps in Case—Boxed | Shipping Weight per Hundred with Screws Pounds |
|---------------------------|---------------------------|----------------------------------|---|
| 3 | 1 | 200 | $17\frac{1}{2}$ |
| 4 | 1 | 200 | 20 |
| 6 | 1 | 100 | 42 |
| 8 | 1 | 100 | $67\frac{1}{2}$ |



Method of packing in boxes without screws

| Length of Strap Inches | Number Dozen Hasps in Box | Weight per Box Pounds | Number Dozen in Case | Shipping Weight per Case, Pounds |
|---------------------------|------------------------------|--------------------------|-------------------------|-------------------------------------|
| 3 | 1 | $1\frac{3}{4}$ | 24 | 48 |
| 4 | 1 | 2 | 24 | 58 |
| 6 | 1 | $4\frac{1}{2}$ | 12 | 62 |
| 8 | $\frac{1}{2}$ | $3\frac{3}{4}$ | 6 | 52 |

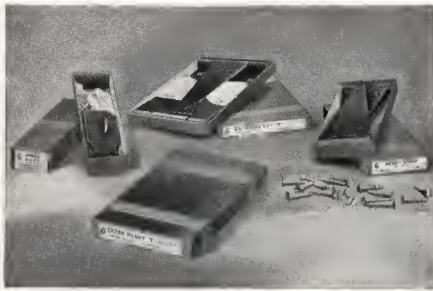
Packed, if desired, one in a box, with screws.

Finishes: Bright Steel, Japan, Sherardized Steel Pin, Sherardized Brass Pin, Hot Galvanized Brass Pin.

Light Strap Hinges



| Size Closed Inches | Length of Joint Inches | Number of Screw-holes | Size of Wood Screws |
|--------------------|------------------------|-----------------------|---------------------|
| 3 | 1 1/8 | 6 | 3/4 x 6 |
| 4 | 1 1/8 | 6 | 3/4 x 7 |
| 5 | 1 3/8 | 8 | 7/8 x 8 |
| 6 | 1 9/16 | 8 | 1 x 9 |
| 8 | 1 3/8 | 8 | 1 x 9 |



Method of packing one pair in a box with screws

| Size Closed Inches | Number of Pairs in Box | Number of Pairs in Case—Boxed | Shipping Weight per Hundred Pairs with Screws Pounds |
|--------------------|------------------------|-------------------------------|--|
| 3 | 1 | 300 | 24 |
| 4 | 1 | 300 | 32 |
| 5 | 1 | 200 | 52 |
| 6 | 1 | 200 | 68 |
| 8 | 1 | 100 | 128 |

| Size Closed, Inches | Number Dozen Pairs in Box | Shipping Weight per Box, Pounds | Dozen Pairs in Case | Shipping Weight per Case, Pounds |
|---------------------|---------------------------|---------------------------------|---------------------|----------------------------------|
| 3 | 2 | 4 3/4 | 24 | 52 |
| 4 | 2 | 6 1/2 | 24 | 85 |
| 5 | 1 | 5 1/4 | | |
| 5 | 2 | 10 1/2 | 12 | 68 |
| 6 | 1 | 7 1/4 | | |
| 6 | 2 | 14 1/2 | 6 | 48 |
| 8 | 1 | 14 | 4 | 60 |



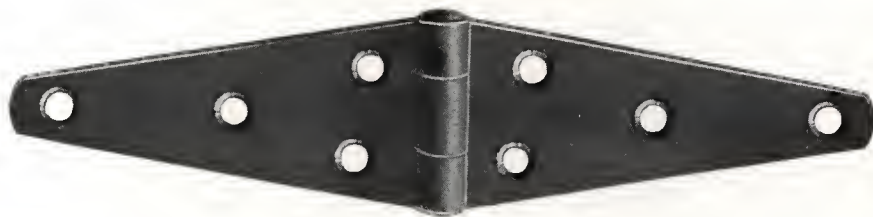
Method of packing in boxes without screws

Sizes up to 6-inch made of cold rolled steel.

Finishes: Bright Steel, Japan, Sherardized Steel Pin, Sherardized Brass Pin, Hot Galvanized Brass Pin.

BUILDERS' HARDWARE

Heavy Strap Hinges



| Size Closed Inches | Length of Joint Inches | Number of Screw-holes | Size of Wood Screws |
|--------------------|----------------------------------|-----------------------|---------------------|
| 4 | 1½ | 6 | 1 x 9 |
| 5 | 1¾ | 8 | 1 x 9 |
| 6 | 2½ | 8 | 1¼ x 11 |
| 8 | 2½ ¹⁵ / ₁₆ | 8 | 1¼ x 12 |
| 10 | 3 ⁷ / ₁₆ | 8 | 1½ x 14 |
| 12 | 4 | 10 | 1¾ x 16 |
| 14 | 4 | 10 | 1¾ x 16 |

| Size Closed Inches | Number of Pairs in Box | Number of Pairs in Case—Boxed | Shipping Weight per Hundred Pairs with Screws Pounds |
|--------------------|------------------------|-------------------------------|--|
| 4 | 1 | 100 | 62 |
| 5 | 1 | 100 | 94 |
| 6 | 1 | 100 | 170 |
| 8 | 1 | 50 | 312 |
| 10 | 1 | 50 | 465 |
| 12 | 1 | 25 | 760 |
| 14 | 1 | 25 | 790 |



Method of packing one pair in a box with screws



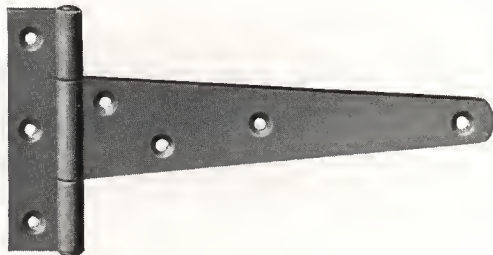
Method of packing in boxes without screws

| Size Closed, Inches | Number Dozen Pairs in Box | Shipping Weight per Box, Pounds | Dozen Pairs in Case | Shipping Weight per Case, Pounds |
|---------------------|---------------------------|---------------------------------|---------------------|----------------------------------|
| 4 | 2 | 11¼ | 12 | 74 |
| 5 | 2 | 18½ | 8 | 80 |
| 6 | 1 | 17¼ | 8 | 146 |
| 8 | ½ | 16½ | 6 | 206 |
| 10 | ½ | 26 | 4 | 216 |
| 12 | ¼ | 20¾ | 2 | 174 |

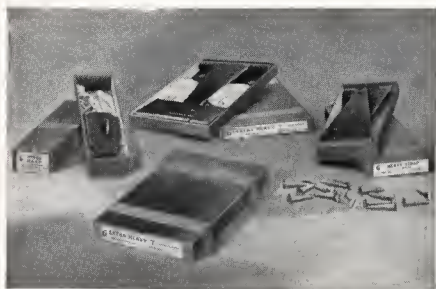
Size 14-inch are packed in bundles only. Weight, per dozen pairs, 94½ pounds.

Finishes: Bright Steel, Japan, Sherardized Steel Pin, Sherardized Brass Pin, Hot Galvanized Brass Pin.

Light "T" Hinges



| Length of Strap Inches | Length of Joint Inches | Width of Strap at Joint Inches | Narrow Width of Pad Inches | Number of Screw-holes | Size of Wood Screws |
|------------------------|------------------------|--------------------------------|----------------------------|-----------------------|---------------------|
| 3 | 2 $\frac{3}{8}$ | 1 | $\frac{3}{4}$ | 6 | $\frac{3}{4}$ x 6 |
| 4 | 2 $\frac{1}{2}$ | 1 $\frac{1}{8}$ | $\frac{7}{8}$ | 6 | $\frac{3}{4}$ x 7 |
| 5 | 3 $\frac{1}{4}$ | 1 $\frac{5}{16}$ | 1 | 7 | $\frac{7}{8}$ x 8 |
| 6 | 3 $\frac{1}{4}$ | 1 $\frac{9}{16}$ | 1 | 7 | $\frac{7}{8}$ x 8 |
| 8 | 4 | 1 $\frac{3}{4}$ | 1 $\frac{1}{16}$ | 7 | 1 x 9 |
| 10 | 4 $\frac{1}{2}$ | 1 $\frac{11}{16}$ | 1 $\frac{3}{16}$ | 8 | 1 x 10 |



| Length of Strap Inches | Number of Pairs in Box | Number of Pairs in Case—Boxed | Shipping Weight per Hundred Pairs with Screws Pounds |
|------------------------|------------------------|-------------------------------|--|
| 3 | 1 | 200 | 27 |
| 4 | 1 | 200 | 36 |
| 5 | 1 | 150 | 52 |
| 6 | 1 | 100 | 68 |
| 8 | 1 | 100 | 120 |
| 10 | 1 | 50 | 150 |

Method of packing one pair in a box with screws

| Size Closed, Inches | Number Dozen Pairs in Box | Shipping Weight per Box, Pounds | Dozen Pairs in Case | Shipping Weight per Case, Pounds |
|---------------------|---------------------------|---------------------------------|---------------------|----------------------------------|
| 3 | 2 | 5 $\frac{1}{4}$ | 24 | 70 |
| 4 | 2 | 6 $\frac{1}{2}$ | 24 | 90 |
| 5 | 1 | 5 | | |
| 5 | 2 | 10 | 12 | 70 |
| 6 | 1 | 6 | | |
| 6 | 2 | 12 | 6 | 40 |
| 8 | 1 | 11 $\frac{3}{4}$ | 4 | 54 |
| 10 | 1 | 15 | 4 | 70 |



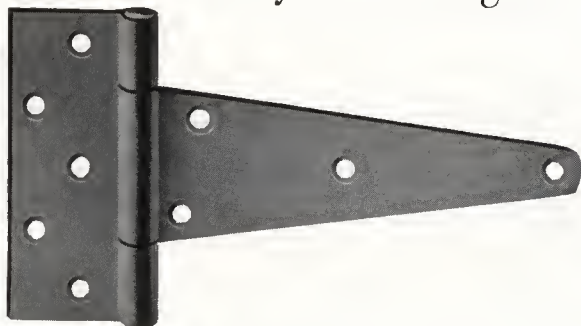
Method of packing in boxes without screws

Sizes up to 6-inch made of cold rolled steel.

Finishes: Bright Steel, Japan, Sherardized Steel Pin, Sherardized Brass Pin, Hot Galvanized Brass Pin.

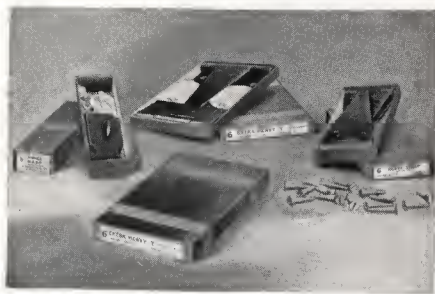
BUILDERS' HARDWARE

Extra Heavy "T" Hinges



| Length of Strap Inches | Length of Joint Inches | Width of Strap at Joint Inches | Narrow Width of Pad Inches | Number of Screw-holes | Size of Wood Screws |
|------------------------|------------------------|--------------------------------|----------------------------|-----------------------|---------------------|
| 4 | 3½ | 11½/16 | 1½ | 6 | 1 x 9 |
| 5 | 315/16 | 17/8 | 17/16 | 8 | 1 x 10 |
| 6 | 4½ | 2 1/8 | 1¾ | 8 | 1¼ x 11 |
| 8 | 5½ | 2½ | 2¼ | 9 | 1¼ x 12 |
| 10 | 7 | 3¾ | 25/16 | 9 | 1½ x 14 |
| 12 | 8 | 35/16 | 2¾ | 10 | 1¾ x 16 |
| 14 | 8 | 35/16 | 2¾ | 10 | 1¾ x 16 |

| Length of Strap Inches | Number of Pairs in Box | Number of Pairs in Case—Boxed | Shipping Weight per Hundred Pairs with Screws Pounds |
|------------------------|------------------------|-------------------------------|--|
| 4 | 1 | 100 | 100 |
| 5 | 1 | 100 | 132 |
| 6 | 1 | 100 | 200 |
| 8 | 1 | 50 | 350 |
| 10 | 1 | 50 | 540 |
| 12 | 1 | 25 | 730 |
| 14 | 1 | 25 | 780 |



Method of packing one pair in a box with screws



Method of packing in boxes without screws

| Size Closed, Inches | Number Dozen Pairs in Box | Shipping Weight per Box, Pounds | Dozen Pairs in Case | Shipping Weight per Case, Pounds |
|---------------------|---------------------------|---------------------------------|---------------------|----------------------------------|
| 4 | 2 | 14 | 12 | 90 |
| 5 | 1 | 13¼ | | |
| 5 | 2 | 26½ | 8 | 114 |
| 6 | 1 | 20½ | 8 | 175 |
| 8 | ½ | 18 | 6 | 230 |
| 10 | ½ | 28¾ | 4 | 240 |
| 12 | ¼ | 19¼ | 2 | 170 |

Size 14-inch are packed in bundles only. Weight, per dozen pairs, 80 pounds.

Finishes: Bright Steel, Japan, Sherardized Steel Pin, Sherardized Brass Pin, Hot Galvanized Brass Pin.

No. 840 Reversible "T" Hinge

For Garage Doors



This hinge is made especially for use on garage doors. It has a loose pin and can be reversed and used as a full surface hinge or mortised into the jamb when brick construction is used.

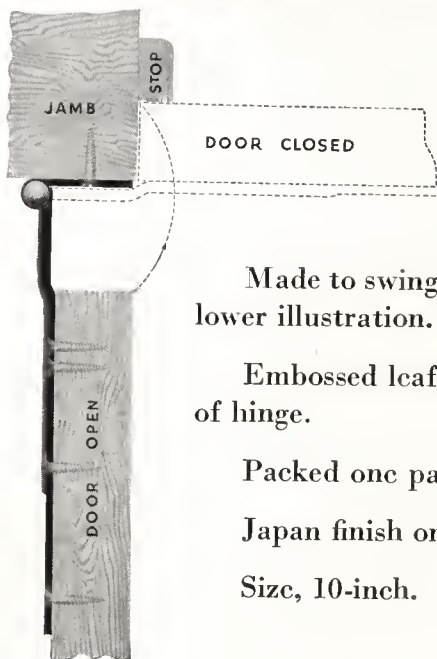
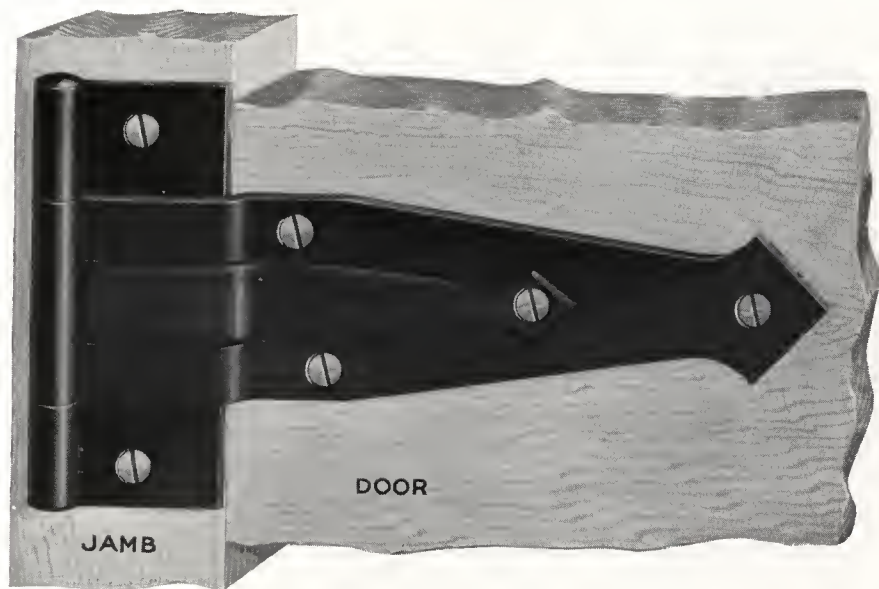
The following finishes are carried regularly in stock: Bright Steel, Japan, Dead Black Japan, Sherardized with Steel Pin.

Packed one pair in a box with screws.

| Size Inches | Weight per Hundred Pairs Pounds |
|----------------|---------------------------------------|
| 6 | 191½ |
| 8 | 301 |
| 10 | 483 |
| 12 | 701 |
| 14 | 748 |

Sizes 12-inch and 14-inch are not embossed.

No. 841 Offset Garage Hinge



Made to swing doors entirely clear of opening. See lower illustration.

Embossed leaf adds to attractiveness and strength of hinge.

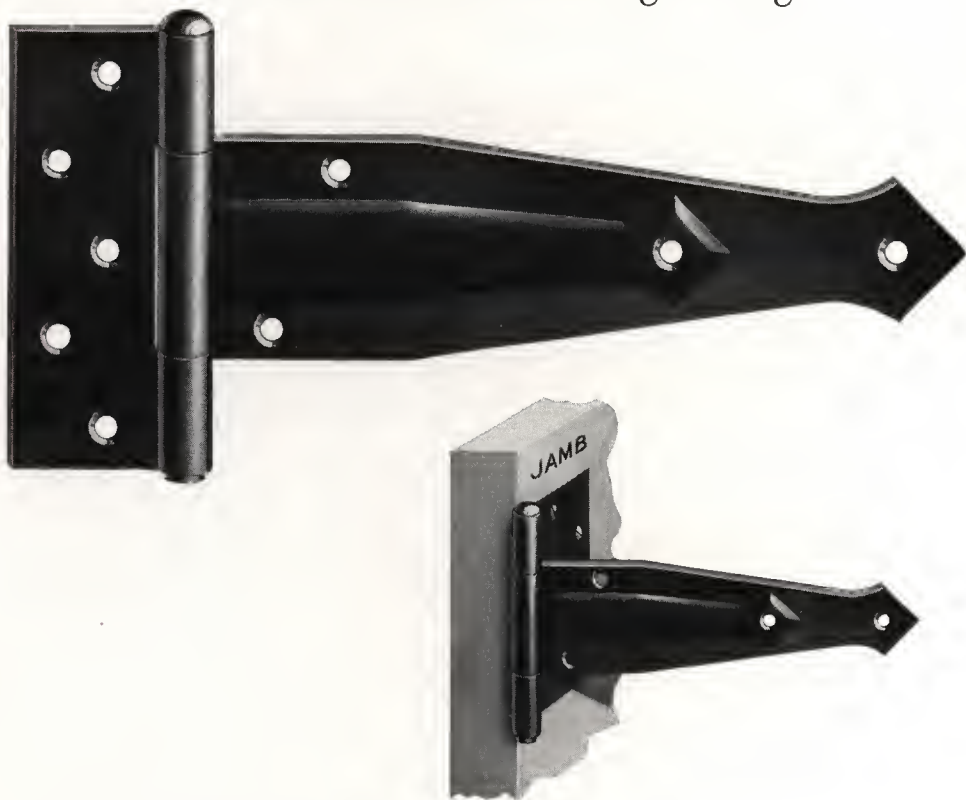
Packed one pair in a box with screws.

Japan finish only.

Size, 10-inch.

Weight, per dozen pairs, 43½ pounds.

No. 842 Ornamental Garage Hinge



Made with a loose pin so that the "T" part can be reversed and used as a full surface hinge or mortised into the jamb when brick construction is used.

The embossed leaf adds to the attractiveness and strength of the hinge.

After hinge is placed in position, the end of pin can be slightly riveted to prevent its removal.

Packed one pair in a box with screws.

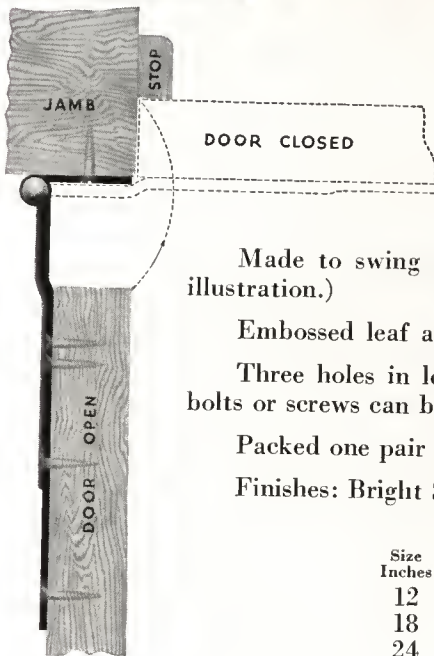
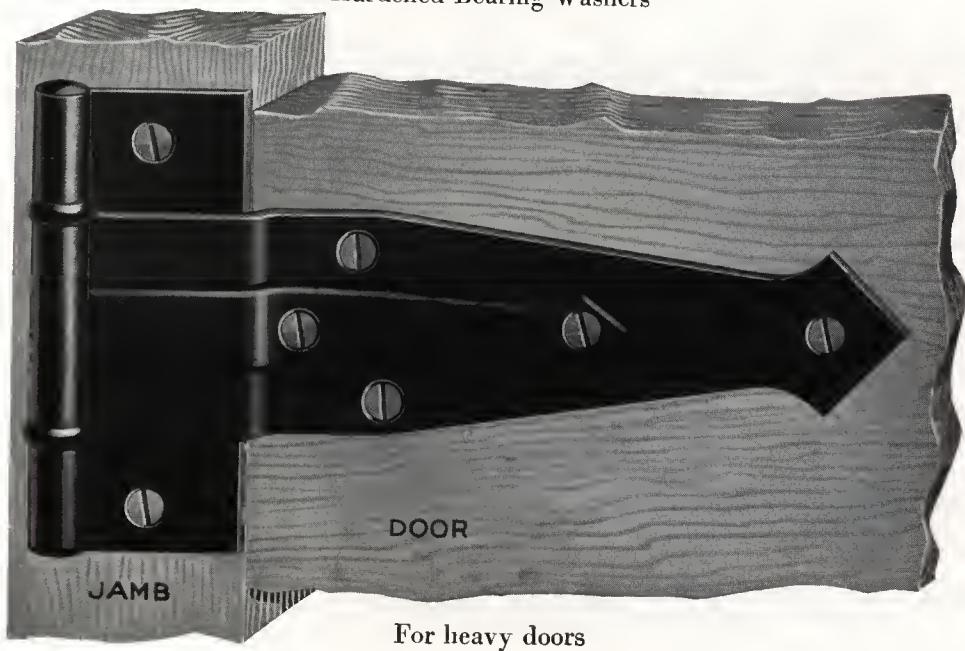
Japan finish only.

Size 6-inch made with tight pin only. Weight, per dozen pairs, 17½ pounds.

Size, 10-inch. Weight, per dozen pairs, 44 pounds.

BUILDERS' HARDWARE

No. 843 Offset Garage Hinge
Hardened Bearing Washers



Made to swing doors entirely clear of opening. (See lower illustration.)

Embossed leaf adds to attractiveness and strength of hinge.

Three holes in leaf are punched square and countersunk so bolts or screws can be used as desired.

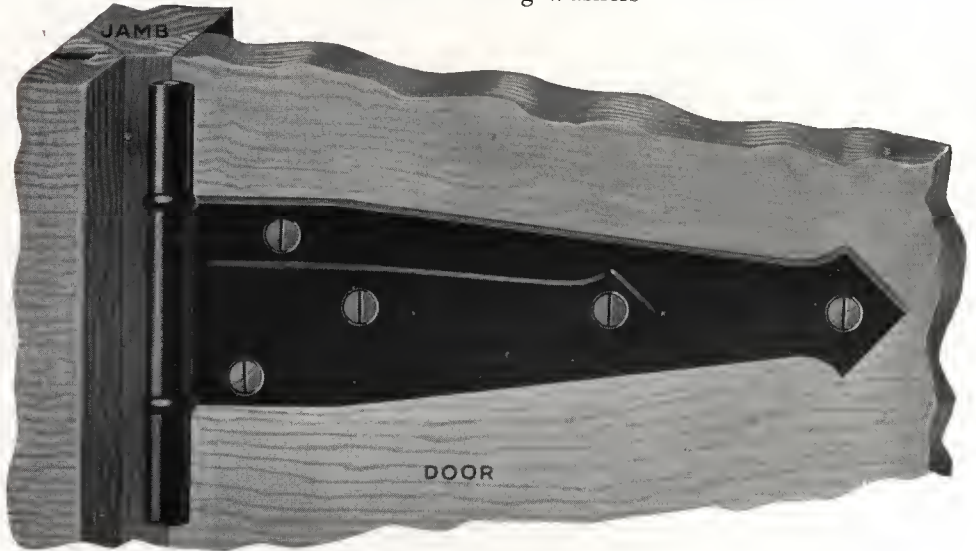
Packed one pair in a box with screws.

Finishes: Bright Steel, Japan or Dead Black Japan.

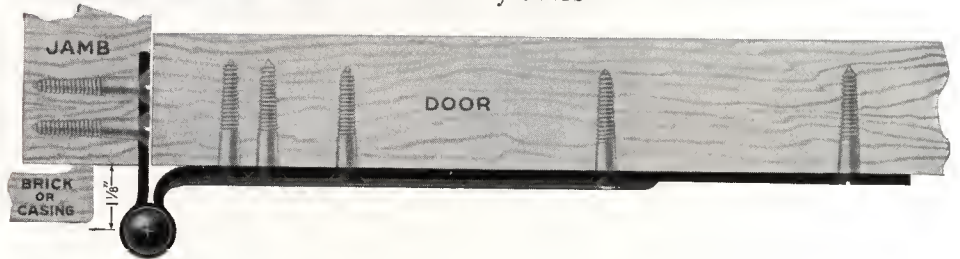
| Size Inches |
|----------------|
| 12 |
| 18 |
| 24 |

| Weight per Dozen Pairs Pounds |
|-------------------------------------|
| 77 $\frac{1}{4}$ |
| 96 |
| 124 |

No. 844 Ornamental Garage Hinge
Hardened Bearing Washers



For heavy doors



Made with an offset. Can be used on either brick or frame construction.

The embossed leaf adds to the attractiveness and strength of the hinge.

Three holes in leaf are punched square and countersunk so bolts or screws can be used as desired.

Packed one pair in a box with screws.

Finishes: Bright Steel, Japan or Dead Black Japan.

| Size Inches | Offset Inches | Throw Inches | Weight per Dozen Pairs Pounds |
|----------------|------------------|-----------------|-------------------------------------|
| 12 | 1 1/8 | 2 1/4 | 79 1/4 |
| 18 | 1 1/8 | 2 1/4 | 98 |
| 24 | 1 1/8 | 2 1/4 | 122 |

No. 846 Offset Garage Surface Hinge



The No. 846 Hinge is suitable for use on folding garage doors which are hung on the outside of the building. In such construction an offset is necessary to accommodate the foot and chain bolts when the doors are folded.

This hinge has an offset of $1\frac{1}{8}$ inches and a throw of $2\frac{1}{4}$ inches is produced.

Packed one pair in a box, with screws.

Japan finish only.

Size, $4\frac{1}{2}$ x $5\frac{1}{4}$ inches. Weight, per dozen pairs, 33 pounds.

No. 847 Offset Garage Hinge



Made to swing doors entirely clear of opening.
The embossed leaf adds to the strength of the hinge.
Packed one pair in a box with screws.
Japan finish only.

Weight, per dozen pairs, 27 pounds.

Screw Hook and Strap Hinges

Plain Steel

Rolled Threads Cold Rolled Joints



Comparative test for tensile strength, from a test made by United States Government Official:

Hot rolled soft steel, average pounds per square inch, 60,000

Cold rolled soft steel, actual pounds per square inch, 99,510

| Length of Strap Inches | Size of Bolt Holes | Approximate Weight per Dozen Pairs | | Length of Strap Inches | Size of Bolt Holes | Approximate Weight per Dozen Pairs |
|------------------------|--------------------|------------------------------------|--|------------------------|--------------------|------------------------------------|
| 6 | 5/16" | 22 1/2 | | 18 | 3/8" | 93 1/2 |
| 8 | 5/16" | 25 1/2 | | 20 | 3/8" | 99 1/2 |
| 10 | 3/8" | 39 1/4 | | 22 | 3/8" | 137 |
| 12 | 3/8" | 48 | | 24 | 3/8" | 143 |
| 14 | 3/8" | 74 | | 30 | 1/2" | 163 |
| 16 | 3/8" | 80 | | 36 | 1/2" | 184 |

Steel Screw Hooks

Rolled Threads Extra Good Points

| Diameter Inches | Length Inches | For Screw Hook and Strap Hinges Inches |
|-----------------|---------------|--|
| 1/2 | 4 | 6, 8 |
| 5/8 | 5 | 10, 12 |
| 3/4 | 6 | 14, 16, 18, 20 |
| 7/8 | 7 1/2 | 22, 24, 30, 36 |

BUILDERS' HARDWARE

Strap and Bolt Hinges



| Length of Strap Inches | Approximate Weight per Dozen Pairs | Length of Strap Inches | Approximate Weight per Dozen Pairs |
|------------------------|------------------------------------|------------------------|------------------------------------|
| 6 | 28½ | 18 | 116½ |
| 8 | 31¾ | 20 | 121½ |
| 10 | 52¾ | 22 | 163½ |
| 12 | 61½ | 24 | 169 |
| 14 | 97 | 30 | 188¾ |
| 16 | 103½ | 36 | 208¾ |

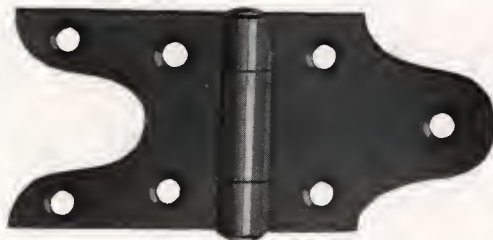
Bolt Hooks

| Diameter Inches | Length Inches | For Strap and Bolt Hinges Inches |
|-----------------|---------------|----------------------------------|
| ½ | 6 | 6, 8 |
| ⅝ | 8 | 10, 12 |
| ¾ | 10 | 14, 16, 18, 20 |
| ⅞ | 10 | 22, 24, 30, 36 |

Special Hinges

Plain Steel, Japanned or Sherardized

| Number | Length Open Inches | Width Inches | Weight per Dozen Pairs Pounds |
|--------|--------------------|--------------|-------------------------------|
| 21 | 3¾ | 1¾ | 4¼ |
| 22 | 5 | 2¼ | 7¾ |
| 23 | 6¼ | 2¾ | 11½ |



Half size of No. 22

Nos. 21 and 22, plain steel, packed one dozen pairs in a box.

No. 23, plain steel, packed one-quarter dozen pairs in a box.

Nos. 21, 22 and 23, Sherardized, packed one pair in a box, with screws.

Japanned hinges are packed with screws only when so ordered.

No. 61 "Self-Cleaner" Pressed Steel Foot Scraper



This Scraper extends out over the end of the step, so that the dirt will drop down and not gather around the Scraper.

Furnished in Japanned, Sherardized or Hot Galvanized.

Envelope with screws attached to each Scraper.

Packed one dozen in a box. Weight, per dozen, 6¾ pounds.

No. 62 "Upright" Pressed Steel Foot Scraper



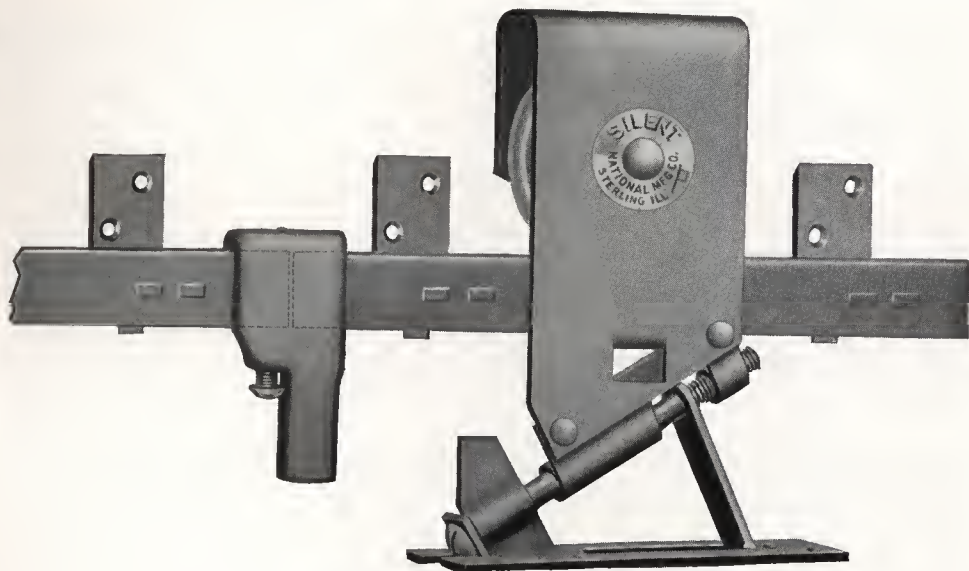
Can be used on wood or embedded in cement.

Furnished in Japanned, Sherardized or Hot Galvanized.

Envelope with screws attached to each Scraper.

Packed one dozen in a box. Weight, per dozen, 7¼ pounds.

No. 82 "Silent" Parlor Door Hanger



Cut shows a left-hand Hanger

A "Silent" Parlor Door Hanger in name and in fact. Extremely simple in construction, with no complicated parts to get out of order.

Doors are easily hung with this Hanger, as it has a flexible hinge-joint which permits the Hanger to adjust itself to the top of the door, whether square or not. The full weight of the door rests on the adjusting-screw, which is extra heavy and long, and will never work loose and permit the door to drop down as do the short adjusting-screws. This is further prevented by a sort of spring lock-nut at the end of the adjusting-screw. The wheel has a vulcanized-fiber tread and is supplied with roller bearings. For sectional view of bearings, see illustration on page 35.

Each set is packed complete with screws, stop and guides. With single sets the stop is not necessary.

Double sets complete with 14-foot track.

Single sets complete with 8-foot track.

Fifteen double sets in a case.

Thirty single sets in a case.

Weight, per double set, 25 pounds.

Weight, per single set, 15 pounds.

No. 70 Cellar Window Set



Cut full size

This Set consists of the following articles:

- One pair 2 x 2-inch Tight-Pin Hinges
- One only 2½-inch Hook and Eye
- One only No. 600 "All-Steel" Sash Lock

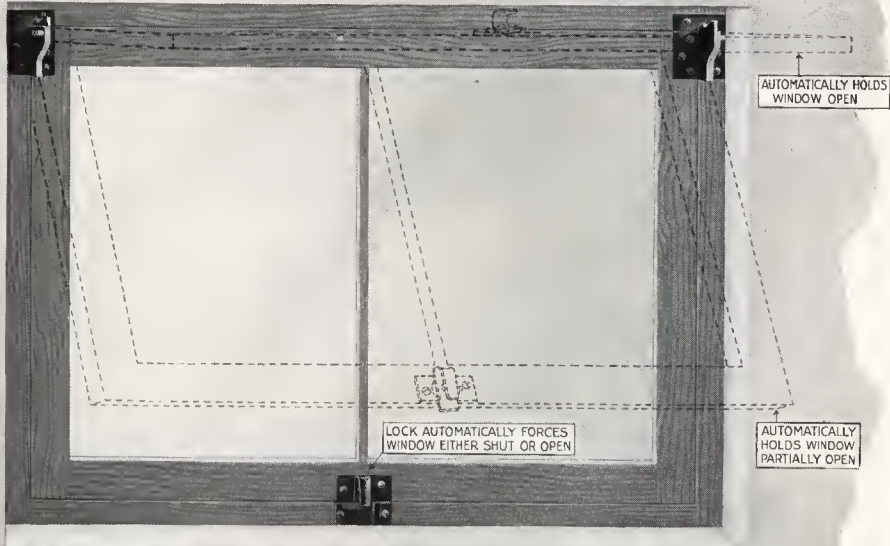
All parts are heavily Sherardized to prevent rust. Also furnished in Japan or Cadmium finish, when so ordered.

A sample set mounted as illustrated when requested. One set, with screws, is packed in a carton. One dozen sets in a box. Twelve dozen sets in a case.

Weight, per dozen sets, 5¾ pounds.

BUILDERS' HARDWARE

No. 71 Automatic Cellar Window Set

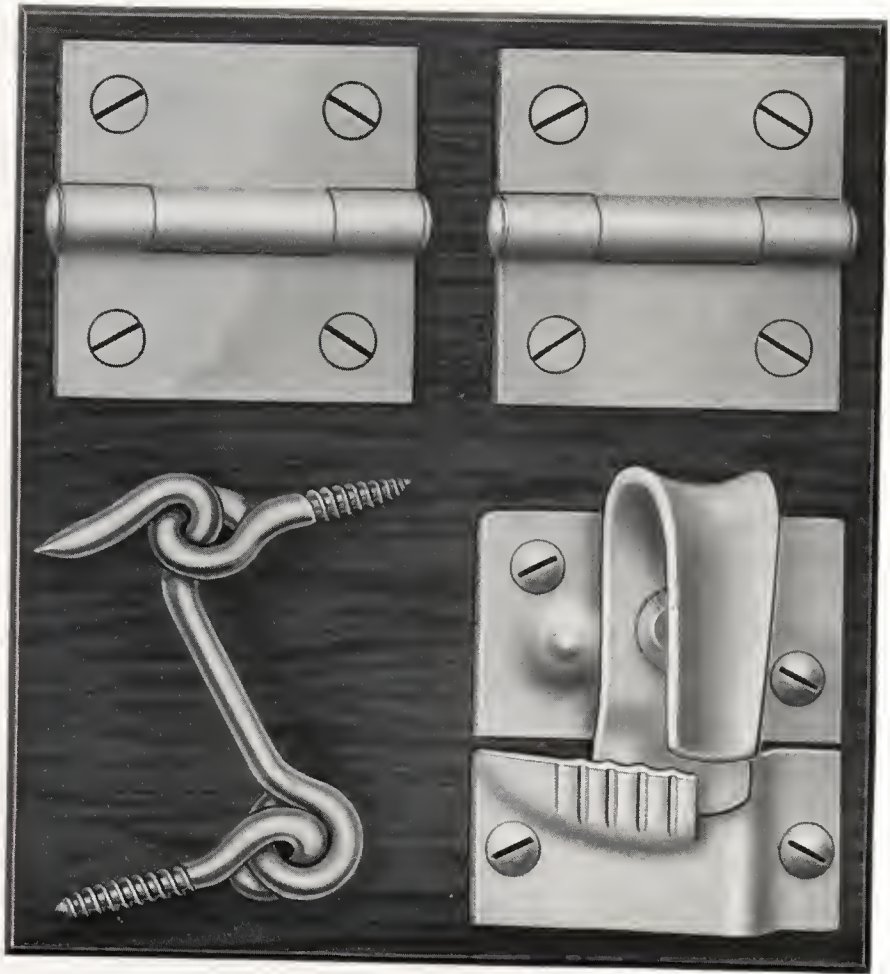


In addition to the good features illustrated, the handle of lock is so formed as to give a liberal handhold to open window.

Furnished either Japanned, Cadmium or Sherardized. A sample set mounted when requested. One set, with screws, is packed in a carton. One dozen sets in a box. Twelve dozen sets in a case.

Weight, per dozen sets, 7½ pounds.

No. 72 Cellar Window Set



This Set consists of the following articles:

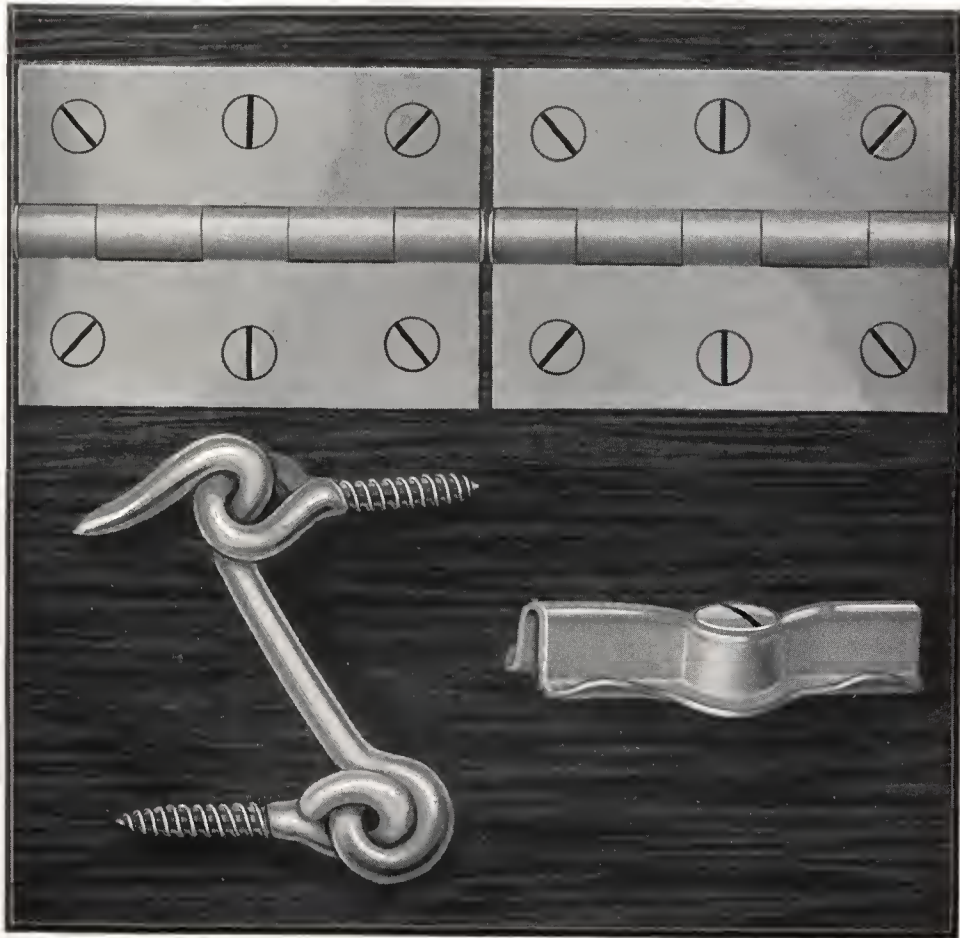
- One pair 2 x 2-inch Tight-Pin Hinges
- One only 2 1/2-inch Hook and Eye
- One only No. 610 Sash Lock

All parts are heavily Sherardized to prevent rust. Also furnished in Japan finish, when so ordered.

A sample set mounted as illustrated when requested. One set, with screws, is packed in a carton. One dozen sets in a box. Twelve dozen sets in a case.

Weight, per dozen sets, 6 1/2 pounds.

No. 73 Cellar Window Set



Cut full size

This Set consists of the following articles:

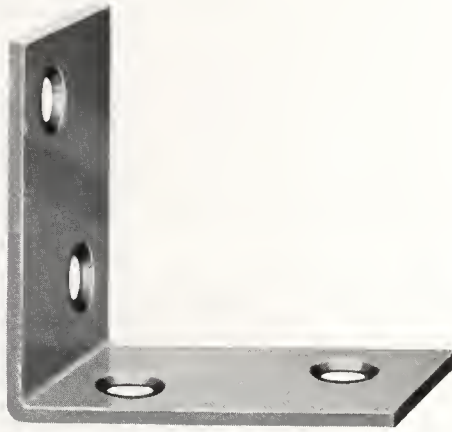
- One pair 2½-inch No. 518 Tight-Pin Light Narrow Hinges
- One only 2½-inch Hook and Eye
- One only 2-inch No. 83 Turn Button

This set is furnished with Japanned Butts, Sherardized Turn Button and Nickel-Plated Hook and Eye, or completely Sherardized.

A sample set mounted as illustrated when requested. One set, with screws, is packed in a carton. One dozen sets in a box. Twelve dozen sets in a case.

Weight, per dozen sets, 3¼ pounds.

No. 115 Corner Iron



Cut full size of 2 x 2-inch

| Length Inches | Width Inches | Number Holes | Number Dozen in Box | Weight per Box without Screws Pounds | Weight per Box with Screws* Pounds |
|------------------|-----------------|-----------------|---------------------------|--|--|
| 1 | $\frac{1}{2}$ | 2 | 3 | $\frac{3}{4}$ | 1 |
| $1\frac{1}{2}$ | $\frac{5}{8}$ | 4 | 3 | $1\frac{3}{4}$ | 2 |
| 2 | $\frac{5}{8}$ | 4 | 3 | $2\frac{1}{4}$ | $2\frac{3}{4}$ |
| 2 | $\frac{7}{8}$ | 4 | 3 | $3\frac{1}{4}$ | $3\frac{3}{4}$ |
| $2\frac{1}{2}$ | $\frac{5}{8}$ | 4 | 3 | $3\frac{1}{2}$ | 4 |
| 3 | $\frac{3}{4}$ | 4 | 3 | 5 | 6 |
| $3\frac{1}{2}$ | $\frac{3}{4}$ | 4 | 3 | 6 | 7 |
| 4 | $\frac{7}{8}$ | 4 | 3 | 9 | 10 |
| 5 | $\frac{7}{8}$ | 6 | 3 | $15\frac{1}{2}$ | $17\frac{1}{4}$ |
| 6 | $1\frac{1}{8}$ | 6 | 2 | 15 | $16\frac{1}{2}$ |
| 8 | $1\frac{1}{4}$ | 6 | 1 | $16\frac{1}{2}$ | 17 |
| 10 | $1\frac{1}{4}$ | 10 | 1 | $20\frac{1}{2}$ | 22 |

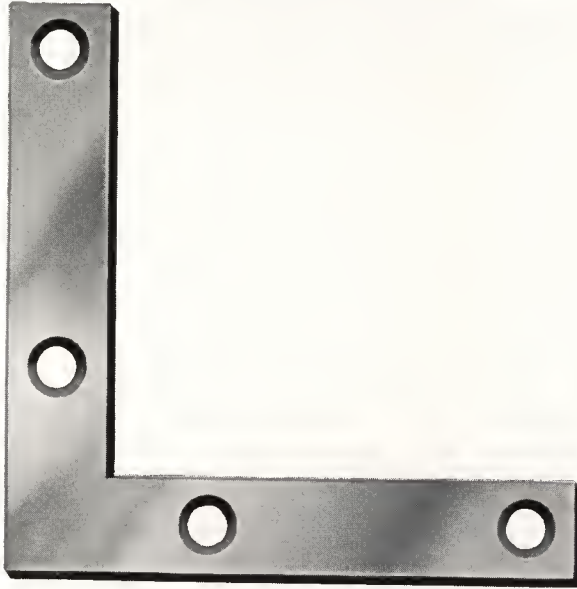
*Cadmium only packed with screws.

Sizes up to $3\frac{1}{2} \times \frac{3}{4}$ -inch made of cold rolled steel.

Finishes: Plain Steel, Sherardized, Hot Galvanized and Cadmium.

BUILDERS' HARDWARE

No. 117 Flat Corner Iron



Cut full size of 3 x 3 x 1/2-inch

| Length Inches | Width Inches | Number Holes | Number Dozen in Box | Weight per Box without Screws Pounds | Weight per Box with Screws* Pounds |
|------------------|-----------------|-----------------|---------------------------|--|--|
| 2 | 3/8 | 4 | 3 | 1 | 1 1/4 |
| 2 1/2 | 3/8 | 4 | 3 | 1 1/4 | 1 1/2 |
| 2 1/2 | 1/2 | 4 | 3 | 1 3/4 | 2 |
| 3 | 1/2 | 4 | 3 | 2 | 2 1/2 |
| 3 | 5/8 | 4 | 3 | 2 1/2 | 3 |
| 3 1/2 | 1/2 | 4 | 3 | 2 1/2 | 2 3/4 |
| 3 1/2 | 5/8 | 4 | 3 | 3 | 3 1/2 |
| 3 1/2 | 3/4 | 4 | 3 | 3 3/4 | 4 1/2 |
| 4 | 3/4 | 4 | 3 | 4 1/4 | 5 |
| 5 | 7/8 | 4 | 2 | 4 | 4 1/2 |
| 6 | 1 | 6 | 2 | 5 3/4 | 6 3/4 |

*Cadmium only packed with screws.

All sizes made of cold rolled steel.

Finishes: Plain Steel, Sherardized, Hot Galvanized and Cadmium.

No. 118 Mending Plate



Cut full size of 2-inch

| Length Inches | Width Inches | Number Holes | Number Dozen in Box | Weight per Box without Screws Pounds | Weight per Box with Screws* Pounds |
|------------------|-----------------|-----------------|---------------------------|--|--|
| 2 | $\frac{1}{2}$ | 2 | 3 | $\frac{3}{4}$ | 1 |
| 3 | $\frac{5}{8}$ | 4 | 3 | $1\frac{3}{4}$ | 2 |
| 4 | $\frac{5}{8}$ | 4 | 3 | $2\frac{1}{4}$ | 3 |
| 4 | $\frac{7}{8}$ | 4 | 3 | $3\frac{1}{4}$ | 4 |
| 5 | $\frac{5}{8}$ | 4 | 3 | $3\frac{1}{4}$ | 4 |
| 6 | $\frac{3}{4}$ | 4 | 3 | 5 | 6 |
| 8 | $\frac{7}{8}$ | 4 | 2 | 6 | $6\frac{3}{4}$ |
| 10 | $\frac{7}{8}$ | 6 | 2 | $10\frac{1}{4}$ | $11\frac{3}{4}$ |
| 12 | $1\frac{1}{8}$ | 6 | 1 | $7\frac{3}{4}$ | $8\frac{1}{4}$ |

*Cadmium only packed with screws.

Sizes up to $6 \times \frac{3}{4}$ -inch made of cold rolled steel.

Finishes: Plain Steel, Sherardized, Hot Galvanized and Cadmium.

No. 119 Steel Tie Plate

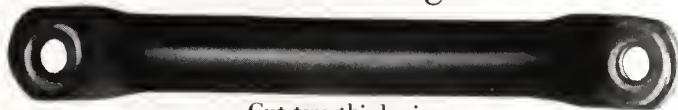


Cut full size

Plain Steel or Japanned

Packed one dozen in a bundle. Weight, per dozen, $\frac{3}{4}$ pound.

No. 120 Steel Angle Brace

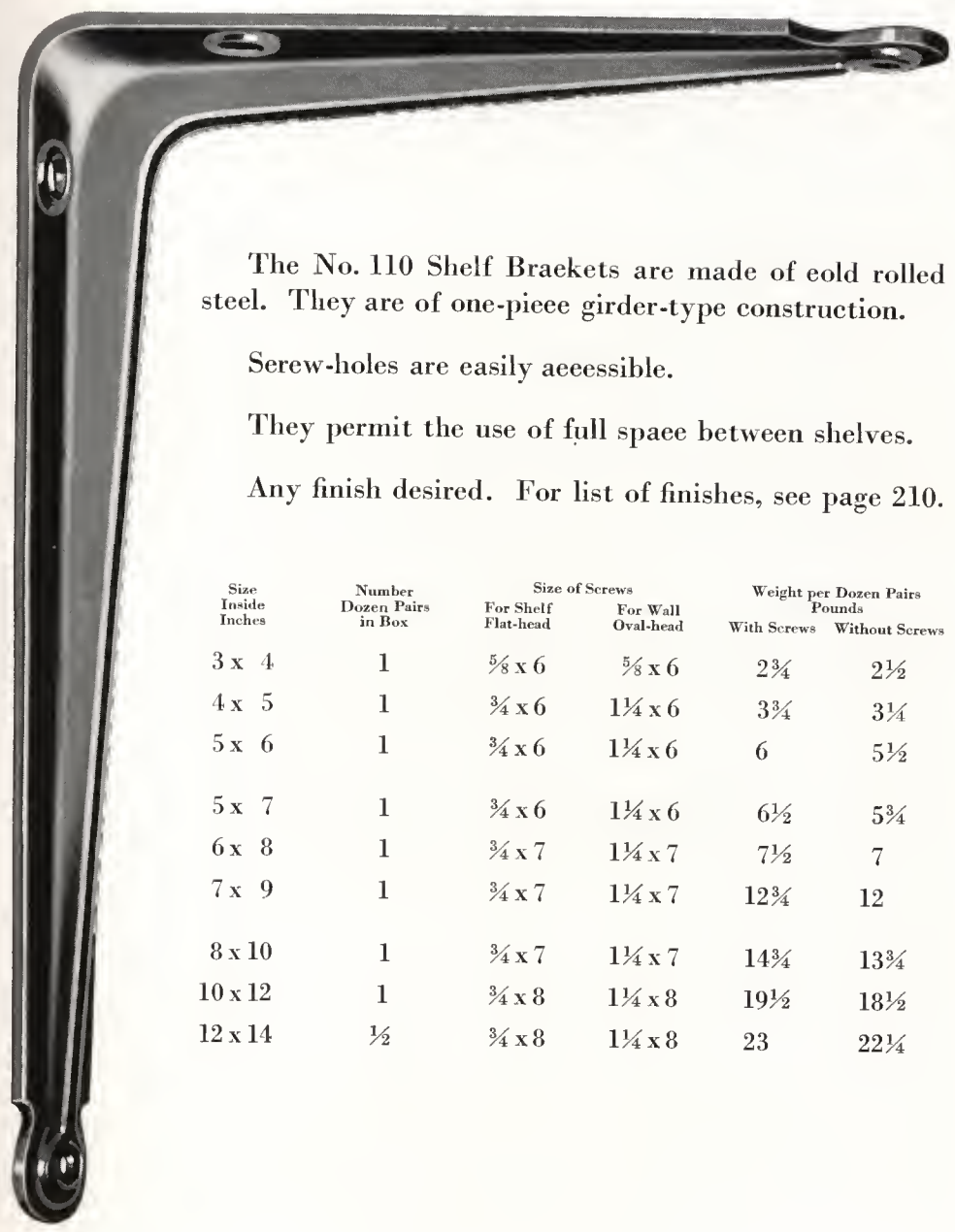


Cut two-thirds size

Plain Steel or Japanned

Japanned, packed one dozen in a box. Plain steel, in bulk.
Weight, per dozen, $\frac{3}{4}$ pound.

No. 110 Shelf Brackets



The No. 110 Shelf Brackets are made of cold rolled steel. They are of one-piece girder-type construction.

Screw-holes are easily accessible.

They permit the use of full space between shelves.

Any finish desired. For list of finishes, see page 210.

| Size Inside Inches | Number Dozen Pairs in Box | Size of Screws | | Weight per Dozen Pairs Pounds | |
|--------------------------|---------------------------------|------------------------|-----------------------|----------------------------------|------------------|
| | | For Shelf Flat-head | For Wall Oval-head | With Screws | Without Screws |
| 3 x 4 | 1 | $\frac{5}{8}$ x 6 | $\frac{5}{8}$ x 6 | 2 $\frac{3}{4}$ | 2 $\frac{1}{2}$ |
| 4 x 5 | 1 | $\frac{3}{4}$ x 6 | 1 $\frac{1}{4}$ x 6 | 3 $\frac{3}{4}$ | 3 $\frac{1}{4}$ |
| 5 x 6 | 1 | $\frac{3}{4}$ x 6 | 1 $\frac{1}{4}$ x 6 | 6 | 5 $\frac{1}{2}$ |
| 5 x 7 | 1 | $\frac{3}{4}$ x 6 | 1 $\frac{1}{4}$ x 6 | 6 $\frac{1}{2}$ | 5 $\frac{3}{4}$ |
| 6 x 8 | 1 | $\frac{3}{4}$ x 7 | 1 $\frac{1}{4}$ x 7 | 7 $\frac{1}{2}$ | 7 |
| 7 x 9 | 1 | $\frac{3}{4}$ x 7 | 1 $\frac{1}{4}$ x 7 | 12 $\frac{3}{4}$ | 12 |
| 8 x 10 | 1 | $\frac{3}{4}$ x 7 | 1 $\frac{1}{4}$ x 7 | 14 $\frac{3}{4}$ | 13 $\frac{3}{4}$ |
| 10 x 12 | 1 | $\frac{3}{4}$ x 8 | 1 $\frac{1}{4}$ x 8 | 19 $\frac{1}{2}$ | 18 $\frac{1}{2}$ |
| 12 x 14 | $\frac{1}{2}$ | $\frac{3}{4}$ x 8 | 1 $\frac{1}{4}$ x 8 | 23 | 22 $\frac{1}{4}$ |

Wire Hooks and Eyes

Steel or Solid Brass



| Length Inches | Weight per Gross Pounds | Length Inches | Weight per Gross Pounds |
|------------------|-------------------------------|------------------|-------------------------------|
| 1 | 1¾ | 4 | 11¼ |
| 1½ | 3 | 5 | 16½ |
| 2 | 4½ | 6 | 21½ |
| 2½ | 6¼ | 8 | 25 |
| 3 | 9 | 10 | 28¼ |
| 3½ | 10¾ | 12 | 31¾ |

Furnished in Bright Steel and Cadmium finishes.

Packed as follows: 1-inch and 1½-inch, one gross in a box;
2-inch to 4-inch, one-half gross in a box.

Perfect Door and Gate Spring

Japanned or Plated



| Number | Weight per Dozen Pounds |
|--------|-------------------------------|
| 1 | 1½ |
| 2 | 1¾ |
| 3 | 2¼ |
| 4 | 2½ |
| 5 | 3½ |
| 6 | 4 |
| 7 | 5 |

Nos. 1, 2 and 7 are not furnished in plated finishes.

Packed one dozen in a box, with hooks.

No. 78 Screen and Storm Sash Hanger

(Patented)



Screen or sash equipped with these hangers are easy to hang. The blind stops inside of casing serve as a guide when sliding hanger up to engage hook on casing. The sections on screen or sash slide over hook on casing and latch automatically. Prevent rattling.

Made especially for use on standard brick-mold but work equally well on frame construction.

The hook, or top section, is made in the form of a corner iron and is attached with three screws. It carries weight both at the top and side. It is made narrow so that it may be attached to the narrowest brick-mold.

Screen or sash must be pushed out at bottom to a considerable angle before the hanger is released. Prevents wind from raising sash off the hook.

Each set wrapped in a separate package complete with Sherardized screws.

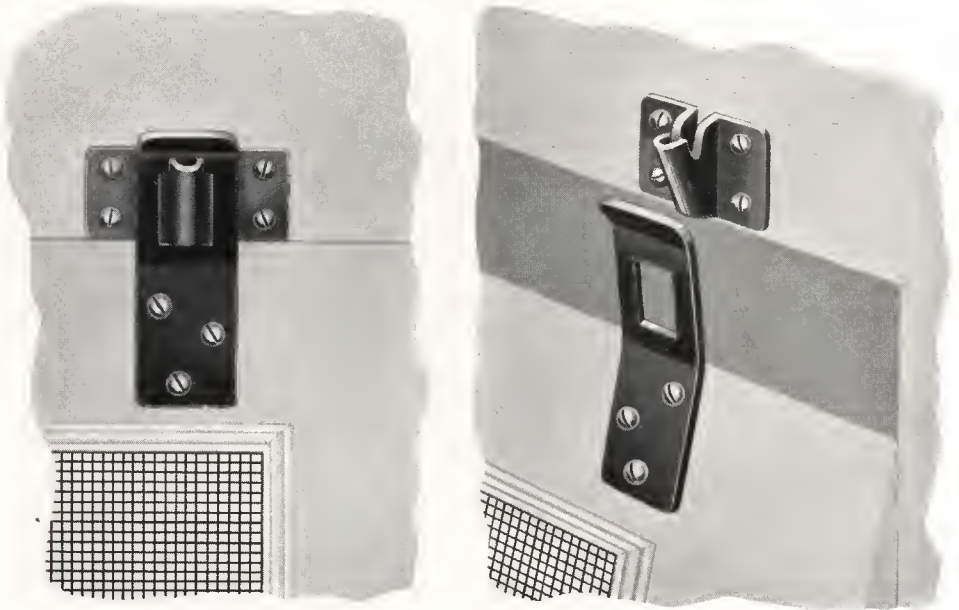
The hangers are furnished Japanned or Sherardized.

Packed one dozen sets in a box. Twenty-four dozen in a case.

Weight, per dozen sets, $4\frac{3}{4}$ pounds.

No. 79 Screen and Storm Sash Hanger

(Patented)



It is easy to hang screen or storm sash equipped with these Hangers. The blind stops inside of casing serve as a guide when sliding Hanger up to engage hook on casing. The sections on screen or sash slide over hook on casing and latch automatically. Prevent rattling.

Made of heavy-gauge steel.

The lower part of top section extends below the center of the bottom screws and acts as a brace, giving additional strength.

Screen or storm sash must be pushed out at bottom to a considerable angle before the Hanger is released. Prevents wind from raising sash off the hook.

Each set is wrapped in a separate package, complete with Sherardized screws.

The Hangers are furnished Japanned, Sherardized, Hot Galvanized and Cadmium finishes.

Packed one dozen sets in a box. Twenty-four dozen sets in a case.

Weight, per dozen sets, 4 pounds.

Extra bottoms can be furnished, packed two dozen sets in a box with screws.

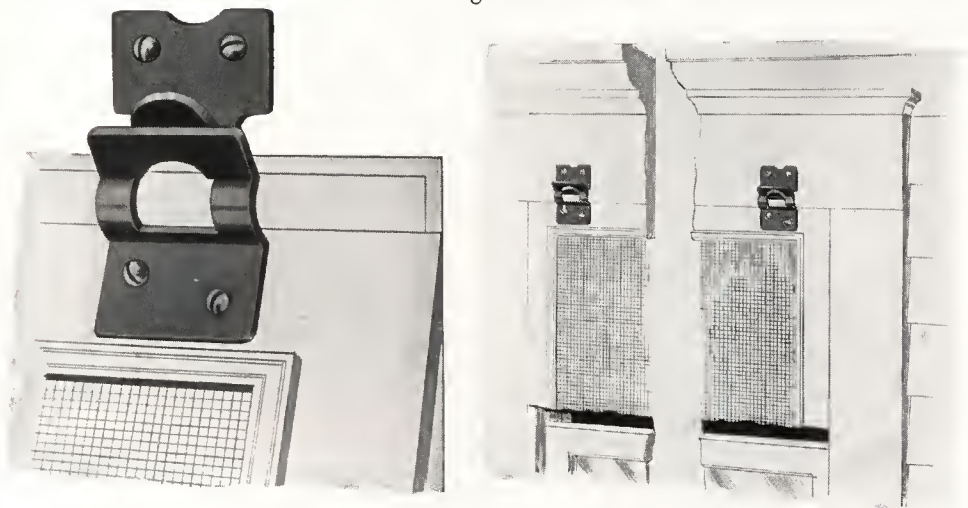
Weight, extra bottoms, two dozen, 4¾ pounds.

No. 79½, same as above, except packed with one only 1½-inch cadmium-plated hook and eye. Weight, per dozen sets, 4¼ pounds.

No. 80 Screen and Storm Sash Hanger

(Patented)

Wrought Steel



The illustrations represent our Screen and Storm Sash Hanger.

First—The top of screen rests against blind-stop inside of casing, which serves as a guide when sliding Hanger up to engage hook on casing at top.

Second—The bottom of screen or sash is pushed out until frame on screen or sash slides over hook on casing and latches automatically.

Third—The Hangers are so constructed that they hold the screen or sash firmly in position and prevent rattling.

To attach the Hangers, first attach the bottom piece to the screen or sash and then fasten the hook on casing.

Each set is wrapped in a separate package, with Sherardized screws.

Hangers furnished Japanned, Sherardized, Hot Galvanized and Cadmium. Packed one dozen sets in a box. Thirty-six dozen sets in a case.

Extra bottoms can be furnished, packed two dozen sets in a box, with screws.

A working model is furnished free with the first order.

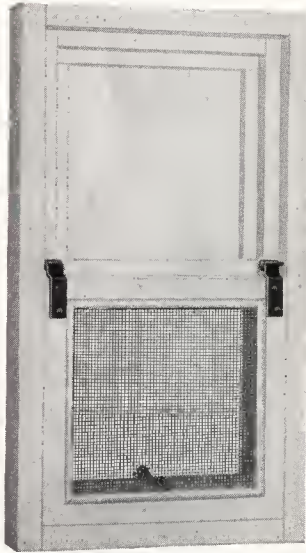
Weight, per dozen sets, $2\frac{3}{4}$ pounds.

Weight, extra bottoms, two dozen, $3\frac{1}{4}$ pounds.

No. 80 $\frac{1}{4}$, same as above, except that it is made with $\frac{5}{16}$ -inch offset. Weight, per dozen sets, $2\frac{1}{2}$ pounds.

No. 80 $\frac{1}{2}$, same as above, except packed with one only $1\frac{1}{2}$ -inch cadmium-plated hook and eye. Weight, per dozen sets, $2\frac{3}{4}$ pounds.

No. 81 Screen Hanger



A simple, convenient device for hanging half-length screens. Easy to attach.

Screens can be hung or removed from inside of room.

Furnished in Sherardized or Cadmium finish.

Each complete set, with 1½-inch hook and eye, wrapped separately.

Packed one dozen sets in a box. Three gross in a case.

Weight, per dozen sets, 1¼ pounds.

No. 83 Turn Button

(Patent applied for)

This Turn Button is so formed that the only point of contact on the window frame is at the circular base around the screw-hole. The wings are raised slightly above the base and the edges are curved up so that in turning it will never gouge into the wood.



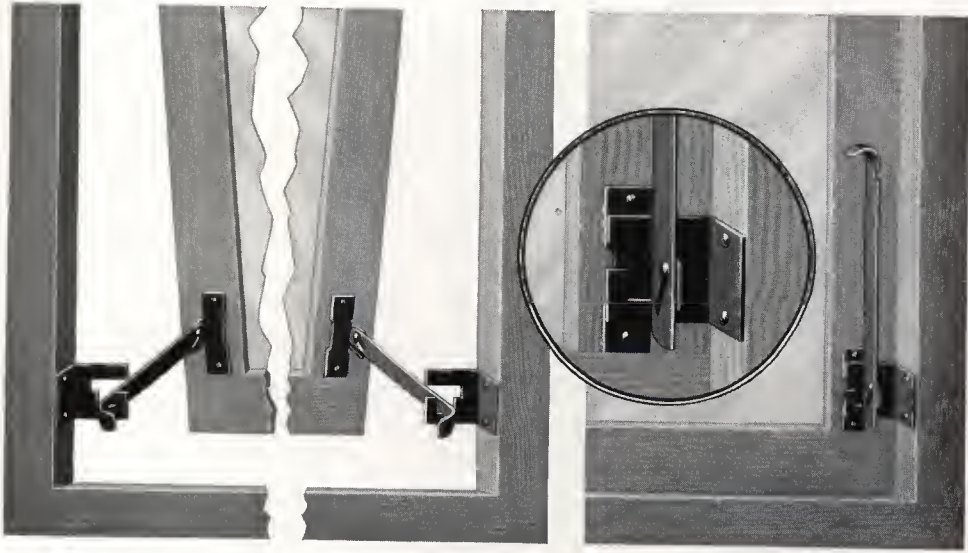
Cut full size of 2-inch

Made only in Cadmium finish, which, being rust-proof, will prevent the appearance of rust streaks on the window frame.

Packed either one gross in a box with 1 x 7 Sherardized oval-head screws, or one gross in a box without screws. Shipped with screws unless otherwise specified.

| Size Inches | Weight per Gross Pounds no Screws | Weight per Gross Pounds with Screws | Number of Gross in Case |
|----------------|--|--|-------------------------------|
| 1¾ | 2½ | 3 | 18 |
| 2 | 3¼ | 3¾ | 20 |

No. 85 Storm Sash Adjuster



The illustrations show the No. 85 Adjuster in the positions it assumes when sash is opened and closed.

The lower illustration is an enlarged view of the Adjuster, and shows the construction of the joint which prevents rattling.

When closed, the Adjuster locks the sash securely in position.

The slot in bar which holds sash open is wedge-shaped, and keeps sash firmly in position. The more pressure on the bar the firmer the wedge-shaped slot is fixed in position.

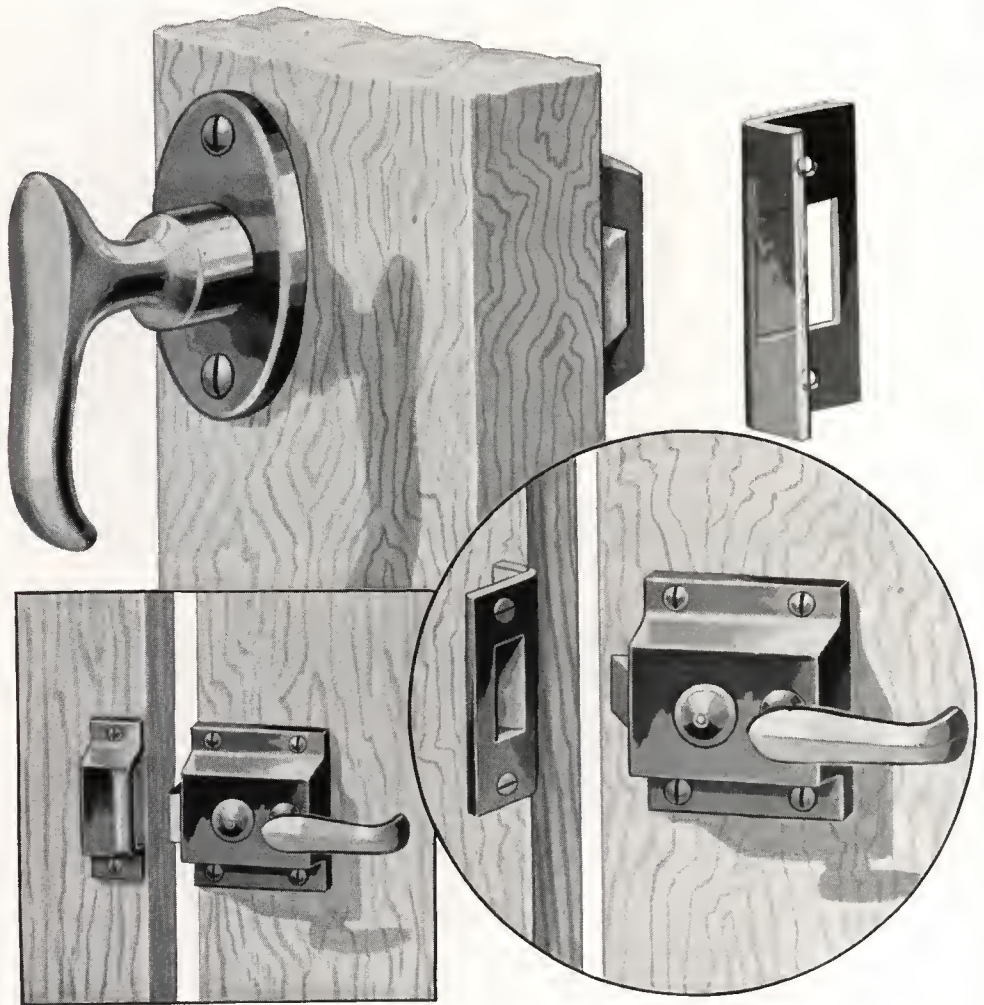
Two sizes, 5-inch and 10-inch. Made entirely of steel. Furnished in Japanned or Cadmium finish.

Packed one pair—one right and one left—in an envelope, with 1x7 screws. Envelope printed with illustrated instructions for attaching. One dozen pairs in a box. Twelve dozen pairs in a case.

Weight, per dozen pairs, 5-inch, $4\frac{1}{2}$ pounds.

Weight, per dozen pairs, 10-inch, $6\frac{1}{4}$ pounds.

No. 95 Rim Screen Door Latch



Artistically designed lever-type handles distinguish this Latch. They are placed far back on the door, preventing interference when opening. For doors $1\frac{1}{16}$ to $1\frac{3}{8}$ inches thick.

Handle and spindle are cast in one piece; no washers required.

Bolt is reversible for doors swinging either in or out. Adaptable for right- or left-hand doors. Can also be used on French doors.

Locking device is controlled by music-wire spring.

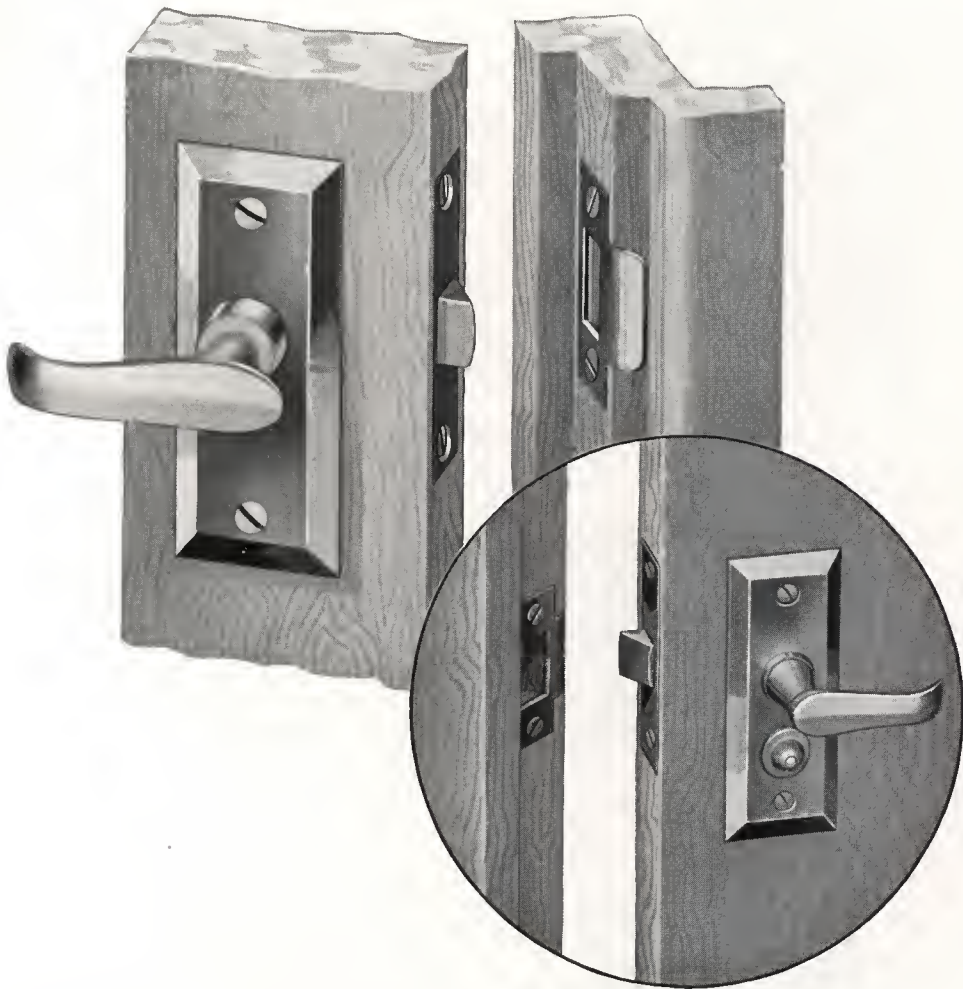
Any finish desired. For list of finishes, see page 210.

Packed with oval-head screws for latch and escutcheon and with flat-head screws for strike.

Packed one Latch in a box, with screws. Ten dozen in a case.

Weight, per dozen, $8\frac{1}{2}$ pounds.

No. 96 Mortise Screen Door Latch



Artistically designed lever-type handles distinguish this Latch. Has beveled-edge escutcheon plates. For doors $1\frac{1}{16}$ to $1\frac{3}{8}$ inches thick.

Handle and spindle are cast in one piece; no washers required.

For doors swinging in or out. Adaptable for right- or left-hand doors. Can also be used on French doors.

Locking device is controlled by music-wire spring.

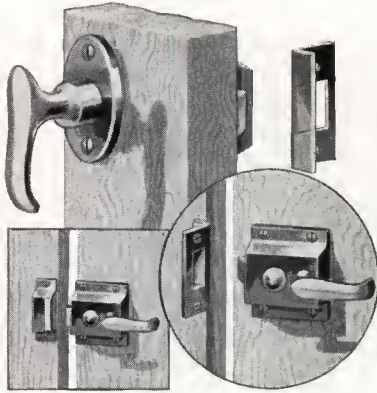
Any finish desired. For list of finishes, see page 210.

Packed with oval-head screws for escutcheons and with flat-head screws for latch and strike.

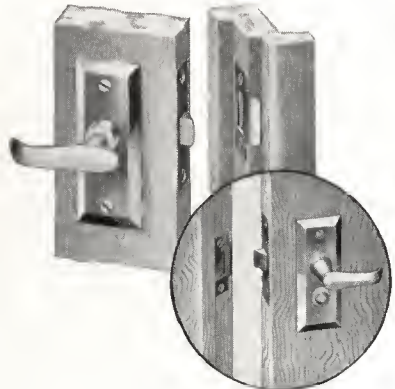
Packed one Latch in a box, with screws. Ten dozen in a case.

Weight, per dozen, $9\frac{1}{2}$ pounds.

Combination Screen and Storm Door Sets



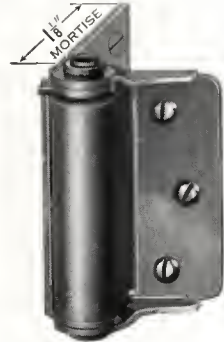
No. 95 Latch



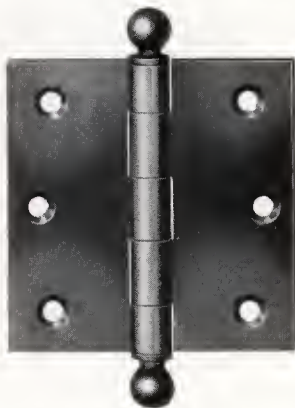
No. 96 Latch



No. 123 Spring Hinge



No. 124 Spring Hinge



No. 500 Butt



No. 420 1/2 Butt

(See opposite page.)

Combination Screen and Storm Door Sets

These sets are made up of items illustrated on the opposite page and are available in the following combinations. Any finish desired. For list of finishes, see page 210.

No. 954 Screen and Storm Door Set

Packed with three only 2½-inch No. 420½ special Screen Door Butts and one only No. 95 Rim Latch.

Weight, per dozen sets, 18¼ pounds.

No. 964 Screen and Storm Door Set

Same as the above, except that it is packed with No. 96 Mortise Latch.

Weight, per dozen sets, 19½ pounds.

No. 955 Screen and Storm Door Set

Packed with three only 2½ x 2½-inch No. 500 Butts and one only No. 95 Rim Latch.

Weight, per dozen sets, 17¾ pounds.

No. 965 Screen and Storm Door Set

Same as the above, except that it is packed with No. 96 Mortise Latch.

Weight, per dozen sets, 19 pounds.

(See opposite page.)

No. 90 Screen and Storm Door Set



Cut one-half size

The combination Screen Set here illustrated is both durable and practical. The No. 121 Hinges are of steel, size 3 x 2½ inches. They are also loose-pin, so that it is not necessary to remove any screws when taking down the door. An offset hinge can be obtained by removing the pin and reversing one leaf.

No. 3 Perfect Spring, with loop ends, packed with each set. Cadmium-plated screws and hooks and eyes are packed with the japanned sets.

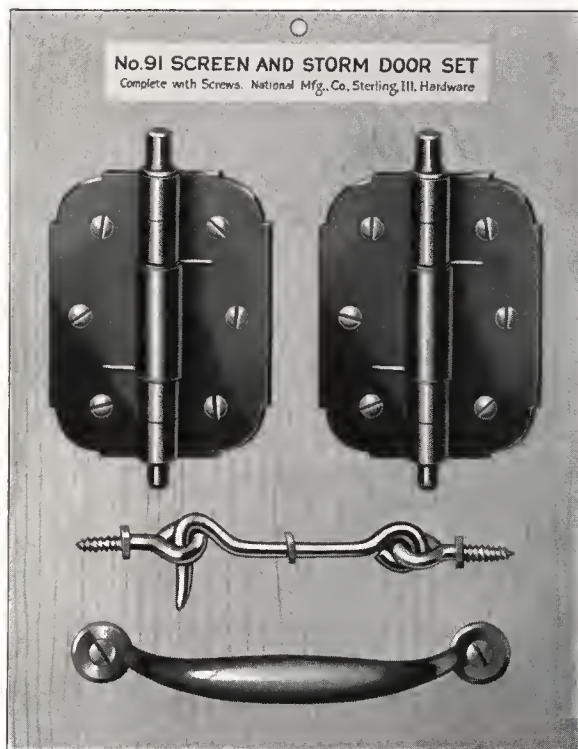
No. 200 Door Pull is packed with this set in all finishes.

A sample set mounted as illustrated when requested. One set, with screws, is packed in a carton, and one dozen sets in a box. Twelve dozen sets in a case.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 10¾ pounds.

No. 91 Screen and Storm Door Set



This Set consists of the following:

1 pair No. 122 Loose Pin Spring Hinges. Made of steel. Music wire spring. Hinge operates with or without spring. Door can be taken down without removing screws.

1 only 2½-inch Hook and Eye.

1 only No. 200 Pull.

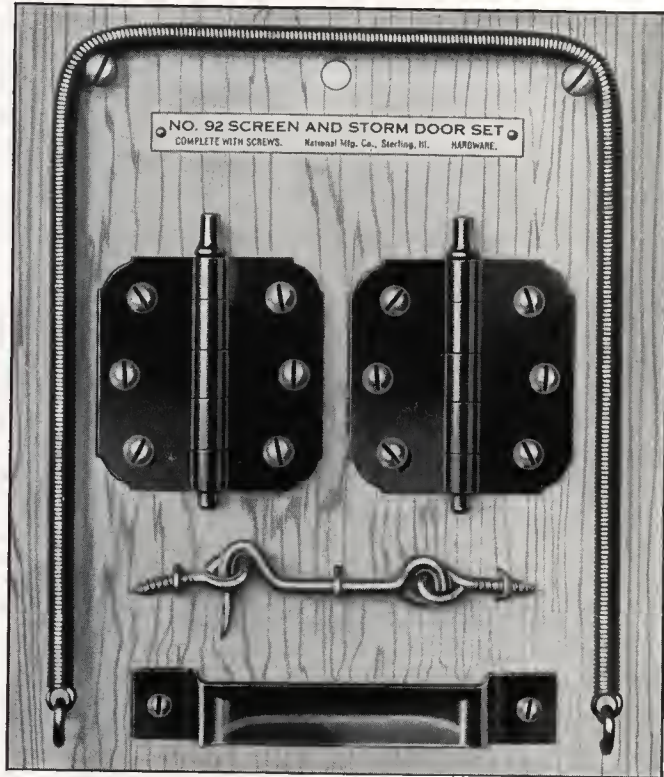
A sample set mounted as illustrated when requested.

Packed one set in a carton, with cadmium-plated screws, and one dozen sets in a box. Twelve dozen sets in a case.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 9 pounds.

No. 92 Screen and Storm Door Set



Cut one-half size

The combination Screen Set here illustrated is both durable and practical. The No. 121 Hinges are of steel, size $2\frac{1}{2} \times 2\frac{1}{2}$ inches. They are also loose-pin, so that it is not necessary to remove any screws when taking down the door. An offset hinge can be obtained by removing the pin and reversing one leaf.

No. 2 Perfect Spring, with loop ends, packed with each set. Cadmium-plated screws and hooks and eyes are packed with these sets.

No. 205 Door Pull is packed with this set.

A sample set mounted as illustrated when requested. One set, with screws, is packed in a carton, and one dozen sets in a box. Twelve dozen sets in a case.

Japan and Cadmium finishes only.

Weight, per dozen sets, $8\frac{1}{4}$ pounds.

No. 93 Screen and Storm Door Set



Cut one-half size

This Set consists of the following:

1 pair No. 123 Spring Hinges. Made of steel. Strong, dependable spring, fully enclosed. Hinge operates with or without spring.

1 only 2½-inch Hook and Eye.

1 only No. 200 Pull.

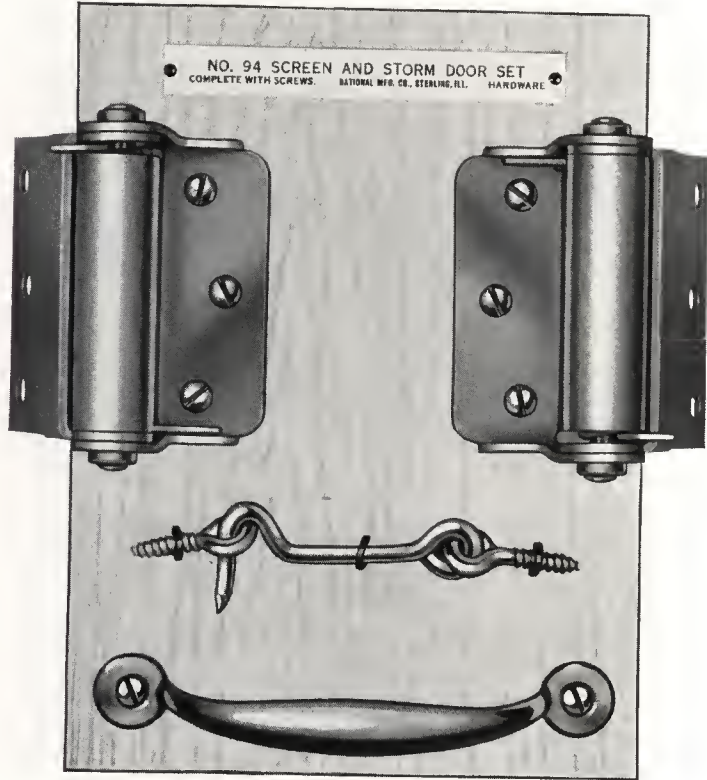
A sample set mounted as illustrated when requested.

Packed one set in a carton, with screws. Twelve dozen sets in a case.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 12¼ pounds.

No. 94 Screen and Storm Door Set



Cut one-half size

This Set consists of the following:

1 pair No. 124 Spring Hinges. Made of steel. Strong, dependable spring, fully enclosed. Hinge operates with or without spring.

1 only 2½-inch Hook and Eye.

1 only No. 200 Pull.

A sample set mounted as illustrated when requested.

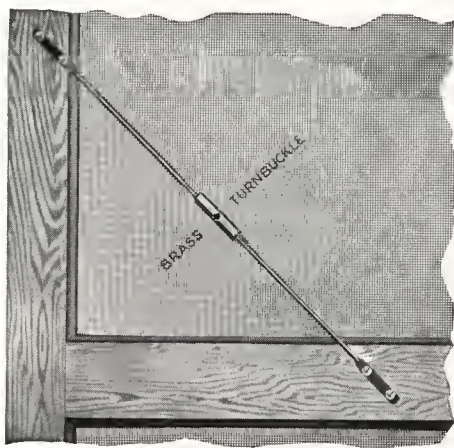
Packed one set in a carton, with screws. Twelve dozen sets in a case.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 12¼ pounds.

BUILDERS' HARDWARE

No. 195 Screen Door Turnbuckle



Our Turnbuckles are made extra long, giving additional leverage to raise the door. They can be used on either screen or storm doors. The end pieces are of steel, with a *brass* Turnbuckle in the center. As brass will not rust to steel, our Turnbuckles can be easily operated at any time. They are made with S.A.E. threads.

Size 14½-inch are packed with cadmium-plated screws, one complete Turnbuckle in a specially printed envelope, one dozen in a box, sixty dozen in a case.

Size 42-inch are packed one dozen in a box.

A handsome enamel stamped display card furnished free with the first order. Any finish desired. For list of finishes, see page 210.

| Length Inches | Weight per Dozen Pounds |
|------------------|-------------------------------|
| 14½ | 1½ |
| 42 | 3½ |

No. 196 Screen Door Turnbuckle



Made extra heavy, with S.A.E. threads.

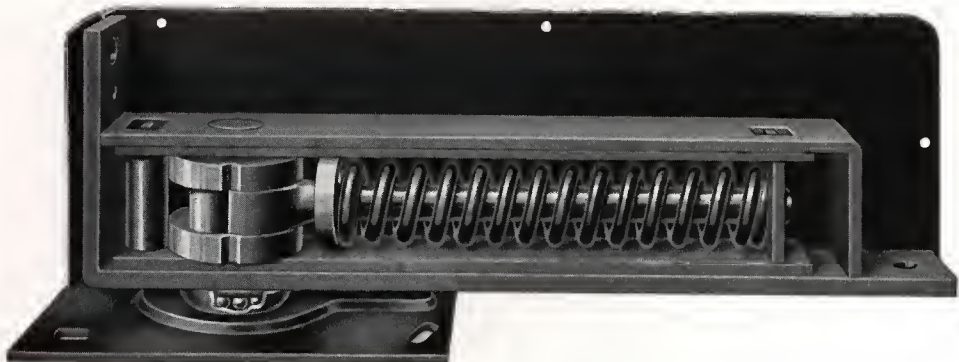
Packed with cadmium-plated screws, one dozen in a box.

Any finish desired. For list of finishes, see page 210.

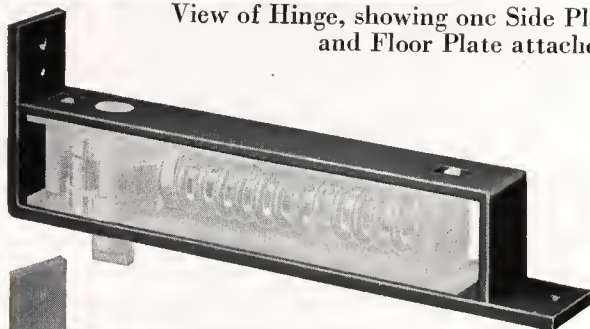
| Length Inches | Weight per Dozen Pounds |
|------------------|-------------------------------|
| 16 | 2¾ |
| 50 | 7½ |

(For Garage Door Turnbuckles, see page 73.)

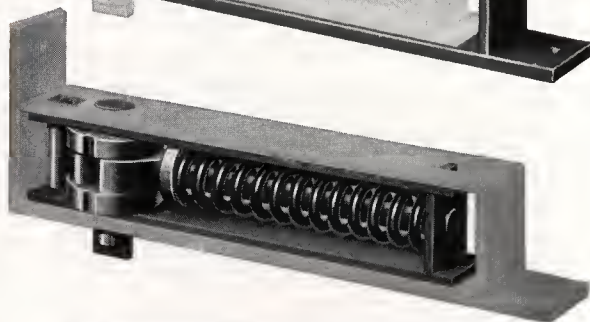
No. 240 Ball-Bearing Floor Hinge



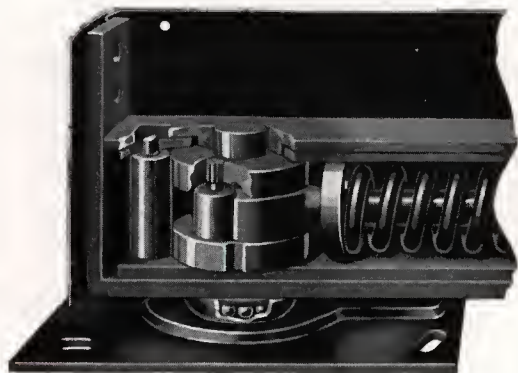
View of Hinge, showing one Side Plate, Back Plate and Floor Plate attached.



Dark part carries the weight of the door independent of the spring-closing feature.



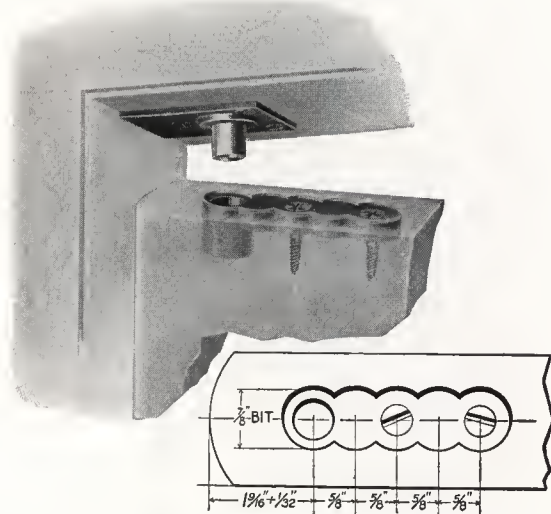
Dark part shows the spring-closing feature independent of the part which carries the weight of the door.



Sectional view, showing construction of bearings and the case-hardened roller at left which absorbs spring pressure.

No. 240 Ball-Bearing Floor Hinge

View showing how pivot for top of door and pivot plate are attached. No chiseling, mortising or measuring required. This is a real time- and labor-saving feature.



The illustrations on this page and the opposite page show our Ball-Bearing Floor Hinge.

The construction of this Floor Hinge is radically different from other floor hinges. The part which bears the weight of the door and the spring-closing feature are independent of each other, although necessarily combined.

The spring pressure and not the weight of the door causes the wear in all spring hinges.

In this Hinge the pressure of the spring is not against the hinge bearing which carries the door, but is absorbed by a 1-inch case-hardened roller, which prevents wear on the hinge bearing. This Hinge will always keep the door firmly in center of opening when at rest, as there is no possibility of wear in the hinge bearing.

In the typical floor hinge, the maximum pressure of the spring against the bearing carrying the weight of the door is, we found by actual test, 300 pounds. The pressure on this bearing in our Hinge is about 10 pounds, a saving in wear and tear in favor of our Hinge in the ratio of 30 pounds to one.

The pivot for the top is attached by simply boring five 5/8-inch holes. Requires no chiseling.

The construction of pivot plate for head jamb is unique. Simply placing end against jamb and inserting three screws brings bearing portion into correct position. No mortising or measuring required. This is one of the greatest labor-saving features of this Hinge, and appeals immediately to the contractor.

Reversible side plates are furnished with this Hinge. They avoid the necessity of stocking both right- and left-hand plates in various finishes.

A jamb plate can be furnished where concrete floors are used.

The screw slots in floor plate are so placed as to provide for an adjustment to secure proper alignment.

The door is held open, when swung to either side, 95 degrees.

The spring is oil tempered. Ball bearings of the very best quality are used.

For doors 1 1/8 inches to 2 1/4 inches thick.

Any finish desired. For list of finishes, see page 210.

Packed one complete Hinge, with all necessary parts, in a box with illustrated directions for attaching. One dozen in a case.

Weight, each, 3 3/4 pounds; case, 50 pounds.



No. 225 Push Plate

Wrought Steel

This is a very popular design. The wide, beveled edges harmonize nicely with beveled-edge escutcheon plates and half-surface butts.

Each plate is slightly bowed. This feature insures the center as well as the ends of the plate being drawn close to the door when the screws are inserted.

Each plate is highly polished and plated. Any finish desired. For list of finishes, see page 210.

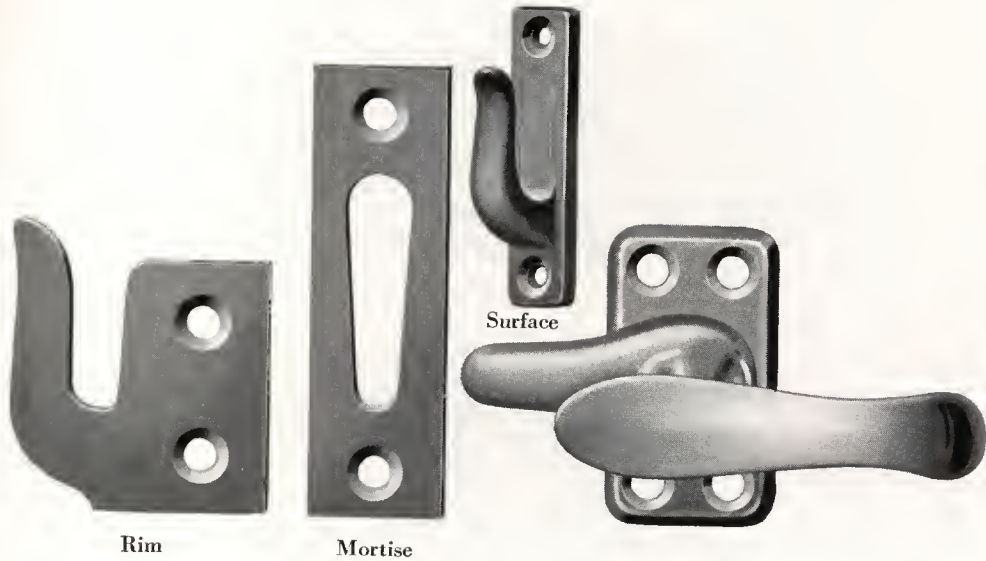
Each plate is wrapped separately in anti-tarnish paper, with $\frac{5}{8}$ x 6 oval-head screws.

One-half dozen in a box.

Size of plate, 3 x 10 inches.

Weight, per dozen, 5 pounds.

Casement Window Fastener



- 750R—with rim strike.
- 750M—with mortise strike.
- 750S—with surface strike.

This Fastener is furnished in any finish desired. For list of finishes, see page 210.

Paeked regularly with rim strikes, one dozen in a box, with screws. Twenty-four dozen in a case. Mortise or surface strike will be furnished if so specified when ordering.

Weight, per dozen, $3\frac{3}{4}$ pounds.

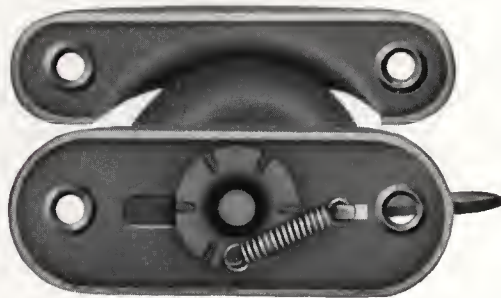
No. 600 Sash Lock

(Patented)

All-Steel or Solid Brass



Cut full size



Bottom view of Sash Lock

The Lock is made of cold rolled steel throughout, taking an exceptionally fine finish. Also furnished in solid brass.

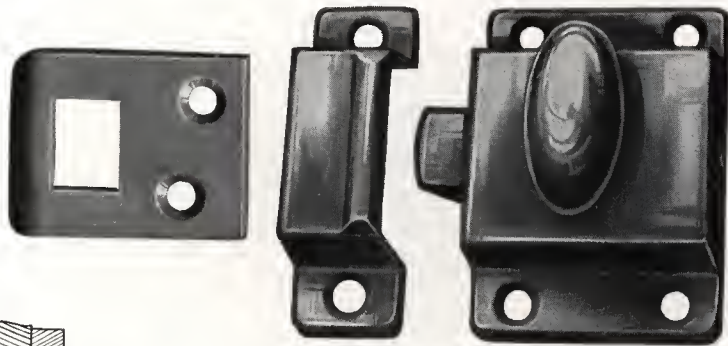
The lower illustration shows the simple construction of this Lock. The coil spring is made of finest piano wire, fully tested. Owing to the peculiar and simple construction of the Lock, friction is reduced to the minimum and the rigidity of the Lock is retained.

Each Lock is wrapped in a separate package, complete with screws. Packed one dozen in a box. Seventy-two dozen in a case.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen, 1¼ pounds.

No. 699 Pressed Steel or Brass Cupboard Turn

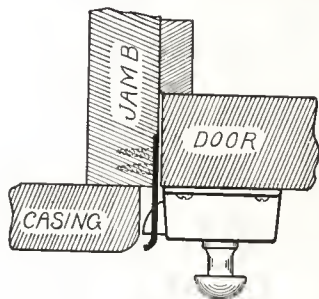


Oval Knob—Cut full size

This Turn is the same construction and design as our No. 702 Cupboard Turn illustrated on page 146, but is much smaller.

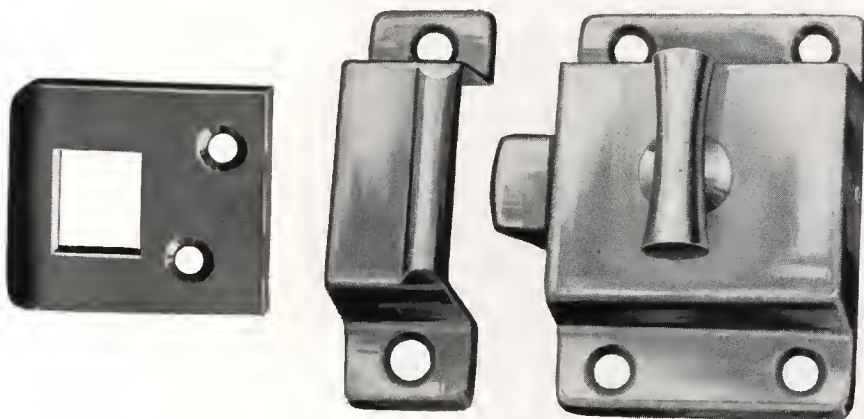
Each Turn is wrapped in a separate package, complete with oval-head screws. Packed one dozen in a box. Sixty dozen in a case.

Weight, per dozen, $1\frac{1}{4}$ pounds.



Cross section showing flat strike attached

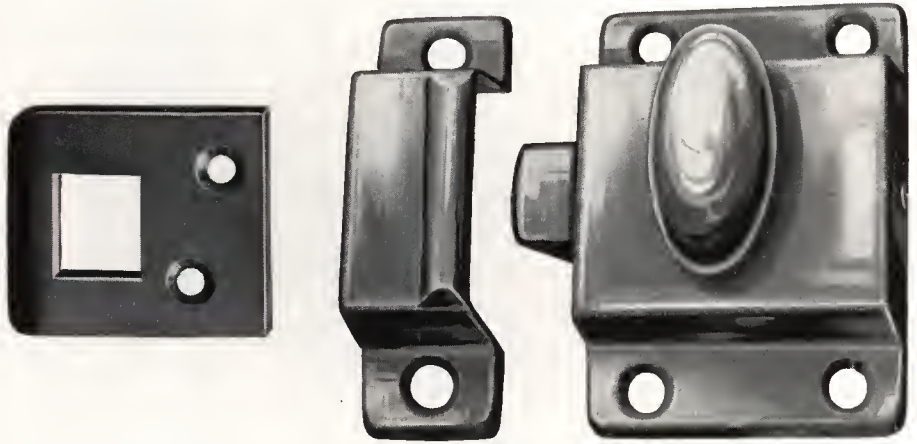
No. 700 Pressed Steel Cupboard Turn



"T" Knob—Cut full size

(For description, see page 146.)

No. 702 Pressed Steel or Brass Cupboard Turn



Oval Knob—Cut full size

The above cut, together with the two on page 145, illustrates our three designs in Cupboard Turns.

Nos. 699 and 702 are made of cold rolled steel; also of solid brass. No. 700 is made of pressed steel only.

The No. 702 Pressed Steel Turn has a solid brass top on the knob.

The following are points of merit:

The bolt has a rounded point same as high-grade door locks.

The strike has a rounded top, providing a roller-shaped bearing on which bolt works easily.

A flat strike, as illustrated on page 145 with Nos. 699 and 700 Cupboard Turns, for use on casings which are not flush with doors, is furnished when so specified.

The Turns are simple in construction, having but few parts. They cannot get out of order.

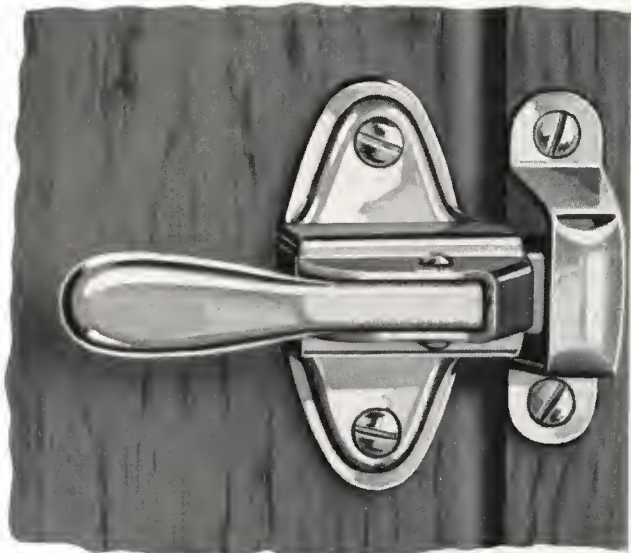
All standard finishes are kept regularly in stock. Special finishes on short notice. For list of finishes, see page 210.

Each Turn is wrapped in a separate package, complete with oval-head screws. Packed one dozen in a box. Forty-eight dozen in a case.

Weight, per dozen, 2 pounds.

Cabinet Door Latches

Steel or Solid Brass



No. 705R. Cut full size

No. 705R. For use with rabbeted doors with $\frac{3}{8}$ -inch offset.

Packed one dozen in a box, with oval-head screws.

Any finish desired. For list of finishes, see page 210.

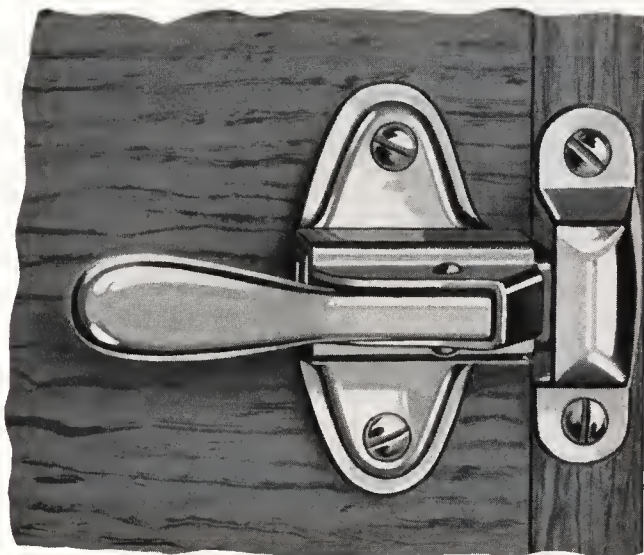
Weight, per dozen, 2 pounds.

No. 705S. For use with flush doors.

Packed one dozen in a box, with oval-head screws.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen, 2 pounds.



No. 705S. Cut full size

Cabinet Door Latches



No. 707

No. 706. For doors $\frac{3}{4}$ to $1\frac{1}{8}$ inches thick.

Made of cold rolled steel with solid-brass handle.

Packed one dozen in a box, with $\frac{5}{8} \times 7$ oval-head screws for handle and $\frac{5}{8} \times 6$ round-head screws for latch.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen, $2\frac{1}{2}$ pounds.

Page 148

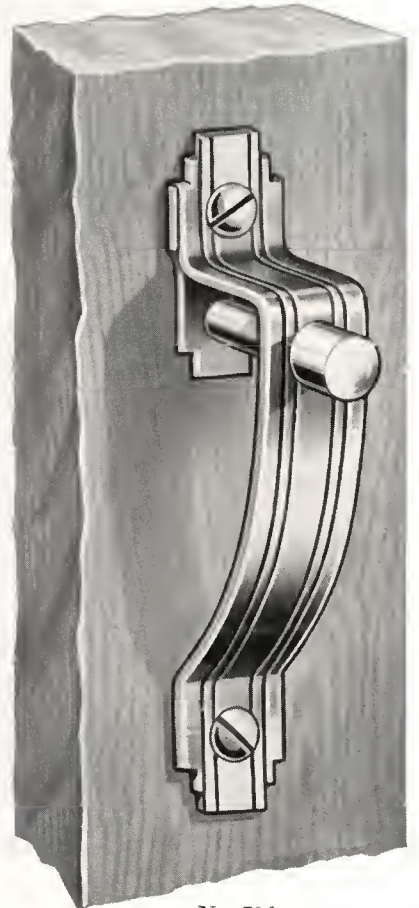
No. 707. For doors $\frac{3}{4}$ to $1\frac{1}{8}$ inches thick.

Made of cold rolled steel with solid-brass handle.

Packed one dozen in a box, with $\frac{5}{8} \times 6$ oval-head screws for the handle and $\frac{5}{8} \times 6$ round-head screws for the latch.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen, $2\frac{1}{2}$ pounds.



No. 706

No. 715 Friction Cabinet Door Set



Set consists of one pair 1¼-inch No. 485 Ornamental Hinges, one No. 710 Friction Catch and one No. 215 Pull with solid-brass top on the knob.

Each set is wrapped in a separate package, with oval-head screws. One dozen sets in a box.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 3 pounds.

No. 716 Friction Cabinet Door Set



For use with rabbeted doors on cupboards.

The Ornamental Hinge is made with $\frac{3}{8}$ -inch offset.

Set consists of one pair No. 486 Offset Ornamental Hinges, one No. 710 Friction Catch and one No. 215 Pull.

Each set is wrapped in a separate package, with oval-head screws. One dozen sets in a box.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, $2\frac{3}{4}$ pounds.

No. 717 Friction Cabinet Door Set



For use with rabbeted doors on eupboards.

The Ornamental Hinge is made with $\frac{3}{8}$ -inch offset.

Set consists of one pair No. 487 Offset Ornamental Hinges, one No. 710 Friction Catch and one No. 215 Pull.

Each set is wrapped in a separate package, with oval-head screws. One dozen sets in a box.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, $2\frac{3}{4}$ pounds.

No. 718 Friction Cabinet Door Set



For use with rabbeted doors on cupboards.

The Ornamental Hinge is made with $\frac{3}{8}$ -inch offset.

Set consists of one pair No. 456 Offset Ornamental Hinges, one No. 710 Friction Catch and one No. 215 Pull.

Each set is wrapped in a separate package, with oval-head screws. One dozen sets in a box.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, $2\frac{3}{4}$ pounds.

No. 719R Cabinet Door Set

Steel or Solid Brass



For use with rabbeted doors on eupboards.

The Ornamental Hinge is made with $\frac{3}{8}$ -inch offset.

Set consists of one pair No. 487 Offset Ornamental Hinges and one No. 705R Cabinet Latch.

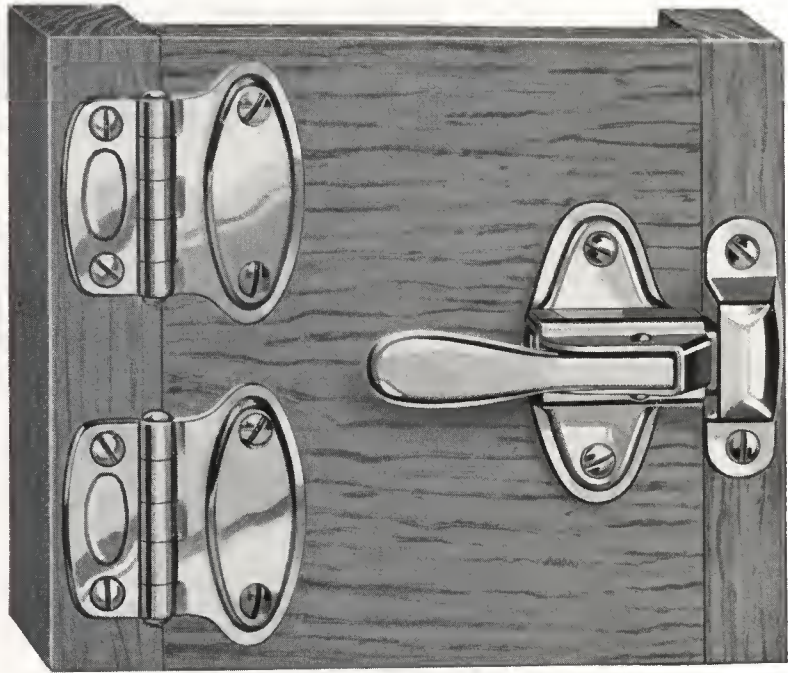
Each set is wrapped in a separate package, with oval-head screws. One dozen sets in a box.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, $3\frac{3}{4}$ pounds.

No. 719S Cabinet Door Set

Steel or Solid Brass



For use with flush doors on cupboards.

The Ornamental Hinge is made full surface.

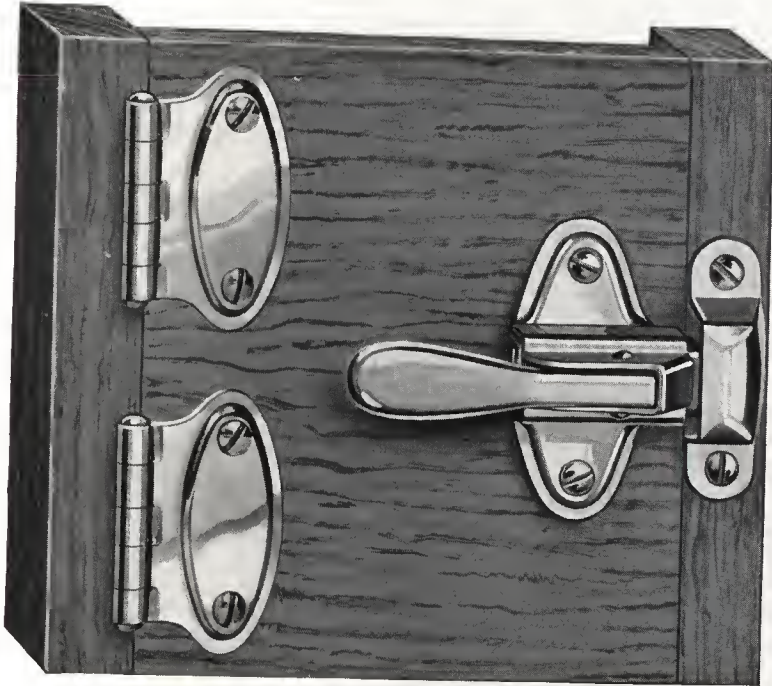
Set consists of one pair No. 495 Ornamental Hinges and one No. 705S Cabinet Latch.

Each set is wrapped in a separate package, with oval-head screws. One dozen sets in a box.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 3½ pounds.

No. 719SM Cabinet Door Set



For use with flush doors on cupboards.

The Ornamental Butt is made half surface, only one side to mortise.

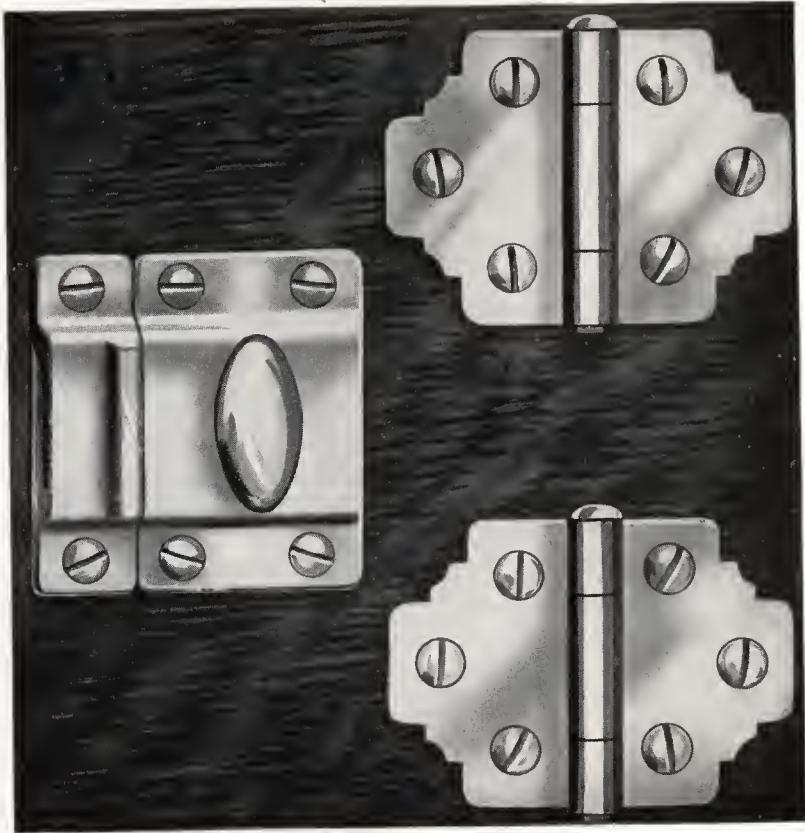
Set consists of one pair No. 490 Half Surface Ornamental Butts and one No. 705S Cabinet Latch.

Each set is wrapped in a separate package, with oval-head screws. One dozen sets in a box.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 3½ pounds.

No. 725 Cabinet Door Set



Cut full size

This set consists of one pair 1½-inch No. 405 Ornamental Hinges and one only No. 699 Cupboard Turn.

It is suitable for use on medicine cabinets, china cabinets, kitchen cabinets, linen cabinets, etc.

Each set is wrapped in a separate package, with oval-head screws. One dozen sets in a box.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 3 pounds.

No. 760R Cabinet Door Set



For use with rabbeted doors on cupboards.

The Ornamental Hinge is made with $\frac{3}{8}$ -inch offset.

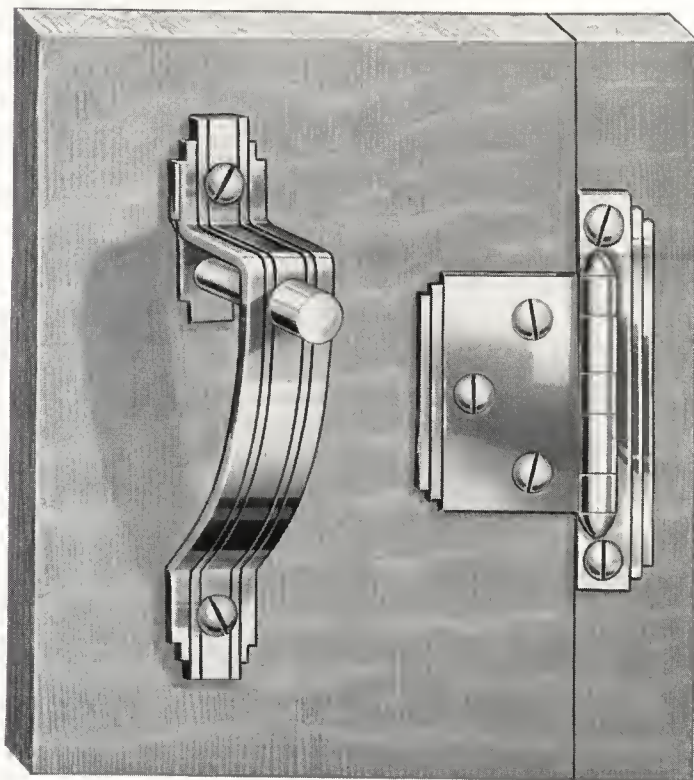
Set consists of one pair No. 460R Offset Ornamental Hinges and one No. 706 Cabinet Latch. The latch has a solid-brass handle.

Packed one dozen sets in a box, complete with screws.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 4 pounds.

No. 760S Cabinet Door Set



For use with flush doors on cupboards.

The Ornamental Hinge is made full surface.

Set consists of one pair No. 460S Ornamental Hinges and one No. 706 Cabinet Latch. The latch has a solid-brass handle.

Packed one dozen sets in a box, complete with screws.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 4 pounds.

No. 770R Cabinet Door Set



For use with rabbeted doors on cupboards.

The Ornamental Hinge is made with $\frac{3}{8}$ -inch offset.

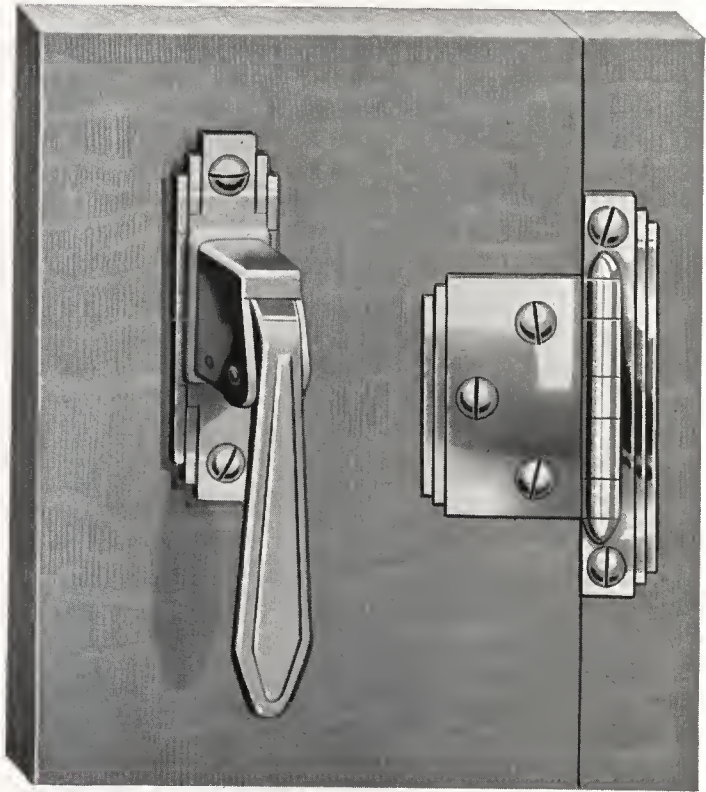
Set consists of one pair No. 460R Offset Ornamental Hinges and one No. 707 Cabinet Latch. The latch has a solid-brass handle.

Packed one dozen sets in a box, complete with screws.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 4 pounds.

No. 770S Cabinet Door Set



For use with flush doors on cupboards.

The Ornamental Hinge is made full surface.

Set consists of one pair No. 460S Ornamental Hinges and one No. 707 Cabinet Latch. The latch has a solid-brass handle.

Packed one dozen sets in a box, complete with screws.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen sets, 4 pounds.

No. 215 Oval-Knob Cabinet Door Pull



Cut full size

Made of cold rolled steel. Solid brass top on knob.

Packed one-quarter gross in a box, with $\frac{5}{8}$ x 5 oval-head screws.

Any finish desired. For list of finishes, see page 210.

Weight, per gross, 8 pounds.

No. 710 Friction Catch



Cut full size

Spring made of specially tempered steel.

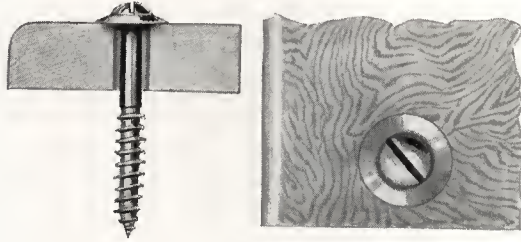
Packed one-quarter, one-half and one gross in a box, each catch wrapped separately with $\frac{1}{2}$ x 6 round-head screws.

Any finish desired. For list of finishes, see page 210.

Weight, per gross, 4 pounds.

No. 300 One-Piece Stop Bead Screw

Requires no washer



Cut full size

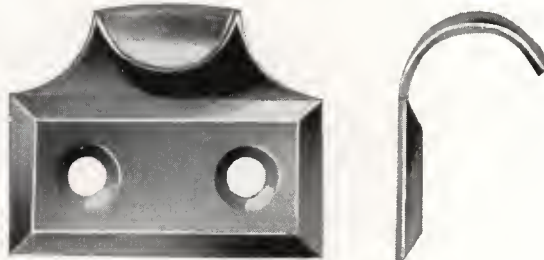
Size, $1\frac{1}{8}$ x 8.

Packed one gross in a box. Any finish desired. For list of finishes, see page 210.

Weight, per gross, 1 pound.

No. 135 Steel Sash Lift

Pressed Steel or Brass



Cut full size

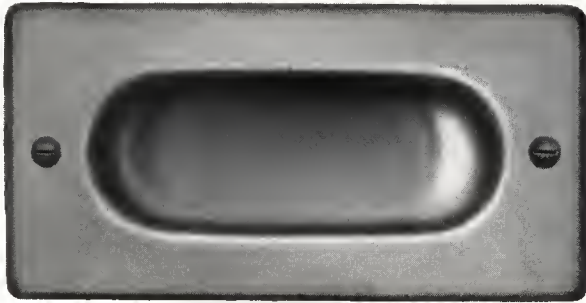
The sectional view at the right shows the liberal projection for the fingers—an unusually valuable feature of this Lift.

Packed one-half gross in a box, with oval-head screws. Eight gross in a case. Any finish desired. For list of finishes, see page 210.

Weight, per gross, $5\frac{1}{4}$ pounds.

No. 140 Flush Sash Lift

Pressed Steel



Cut full size

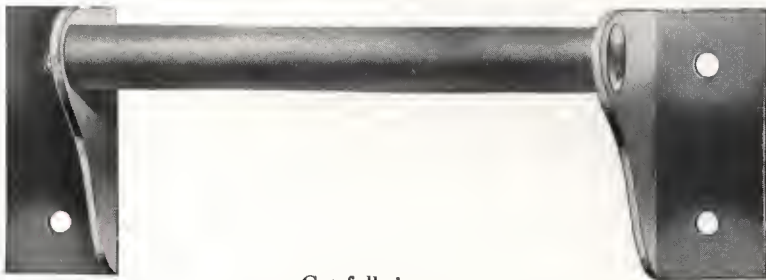
One size only, 3 inches.

Each Lift is wrapped in a separate package, complete with oval-head screws. Packed one-quarter gross in a box. Any finish desired. For list of finishes, see page 210.

Weight, per gross, 9½ pounds.

No. 150 Bar Sash Lift and Drawer Pull

Pressed Steel



Cut full size

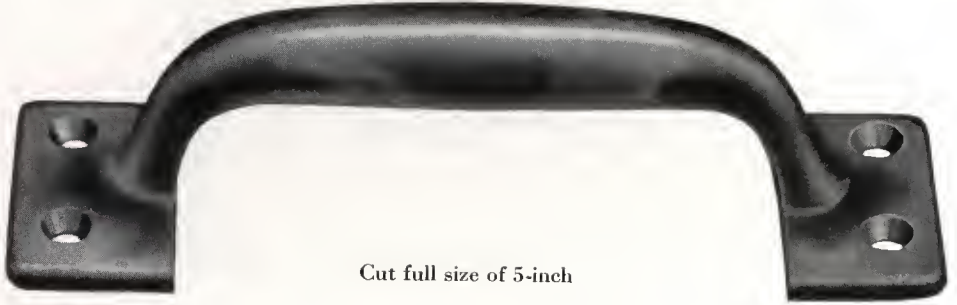
One size only, 4 inches.

Four Sash Lifts, with screws in envelope, tied in a package. Packed one-quarter gross in a box. Five gross in a case. Any finish desired. For list of finishes, see page 210.

Weight, per gross, 22¼ pounds.

No. 160 Bar Sash Lift and Drawer Pull

Cast Iron



Cut full size of 5-inch

| Size Inches | Size Screws | Weight per Gross Pounds |
|----------------|-------------------|----------------------------|
| 4 | $\frac{5}{8}$ x 5 | 21 |
| 5 | $\frac{3}{4}$ x 7 | $36\frac{3}{4}$ |

Packed one-quarter gross in a box, with oval-head screws. Four gross in a case. Any finish desired. For list of finishes, see page 210.

No. 170 Bar Sash Lift and Drawer Pull

Pressed Steel



Cut full size

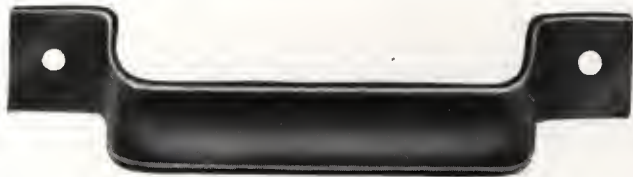
One size only, 4 inches.

Packed one-quarter gross in a box, with $\frac{5}{8}$ x 5 oval-head screws. Five gross in a case. Any finish desired. For list of finishes, see page 210.

Weight, per gross, $11\frac{1}{4}$ pounds.

No. 205 Drawer Pull

Pressed Steel



Cut full size of $3\frac{1}{4}$ -inch

| Length Inches | Width Inches | Weight per Gross Pounds | Number of Gross in Case |
|------------------|-----------------|----------------------------|----------------------------|
| $2\frac{3}{4}$ | $\frac{1}{2}$ | $5\frac{3}{4}$ | 5 |
| $3\frac{1}{4}$ | $\frac{5}{8}$ | 8 | 6 |
| $4\frac{1}{2}$ | $\frac{3}{4}$ | $13\frac{1}{2}$ | 5 |

Packed one-quarter gross in a box, with screws. Any finish desired.
For list of finishes, see page 210.

No. 210 Screen Lift

Japanned or Plated



Packed one-half gross in a box, complete with screws. Any finish
desired. For list of finishes, see page 210.

Weight, per gross, $4\frac{1}{2}$ pounds.



No. 106 Door Pull

Made of solid brass.

Packed one in an envelope, with $\frac{5}{8}$ x 7 oval-head screws. One dozen in a box.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen, 14 ounces.

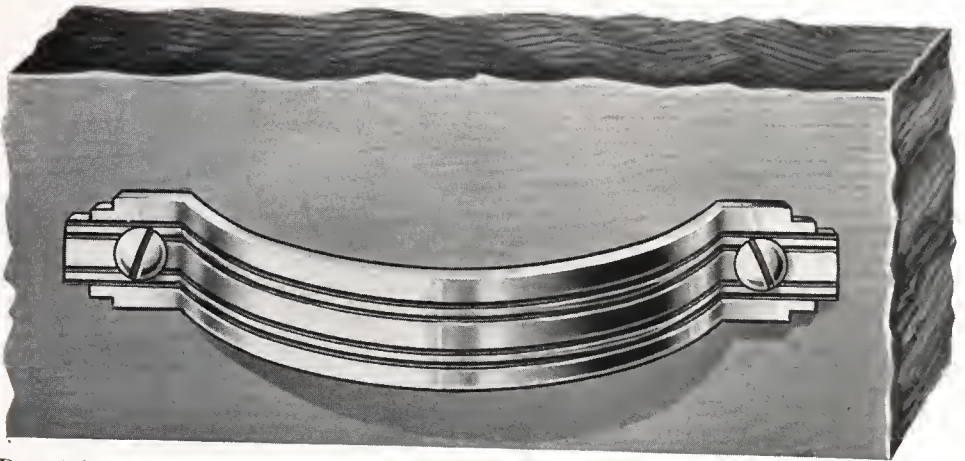
No. 107 Drawer Pull

Made of solid brass.

Packed one in an envelope, with $\frac{5}{8}$ x 7 oval-head screws. One dozen in a box.

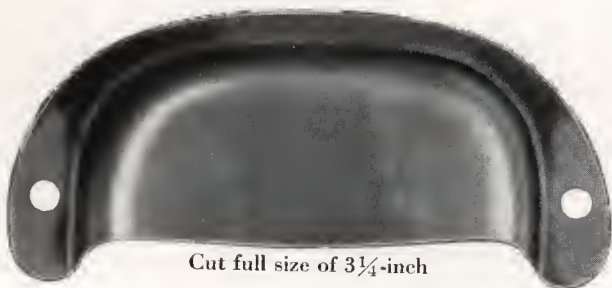
Any finish desired. For list of finishes, see page 210.

Weight, per dozen, 14 ounces.



No. 105 Crescent Drawer Pull

Pressed Steel or Brass



Cut full size of $3\frac{1}{4}$ -inch

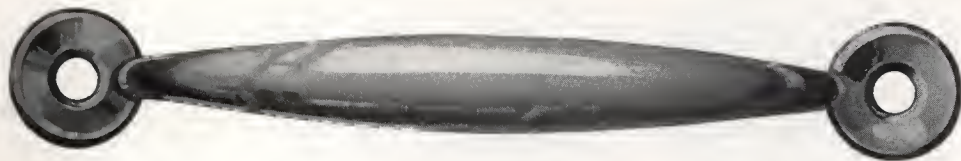
| Size Inches | Steel Weight per Gross Pounds | Brass Weight per Gross Pounds |
|----------------|-------------------------------------|-------------------------------------|
| $3\frac{1}{4}$ | $9\frac{1}{4}$ | 11 |
| $3\frac{3}{4}$ | $13\frac{1}{4}$ | $14\frac{1}{2}$ |

The $3\frac{1}{4}$ -inch size only is furnished in solid brass.

Each Crescent Pull is wrapped in a separate package, complete with screws. Packed one-quarter gross in a box. Six gross in a case.

Any finish desired. For list of finishes, see page 210.

No. 200 Pressed Steel Pull



Made of cold rolled steel, highly polished. One size only, 5 inches. Packed one-quarter gross in a box, with $\frac{3}{4}$ x 7 oval-head screws.

Any finish desired. For list of finishes, see page 210.

Weight, per gross, $7\frac{1}{2}$ pounds.

No. 121 Loose Pin Surface Hinge



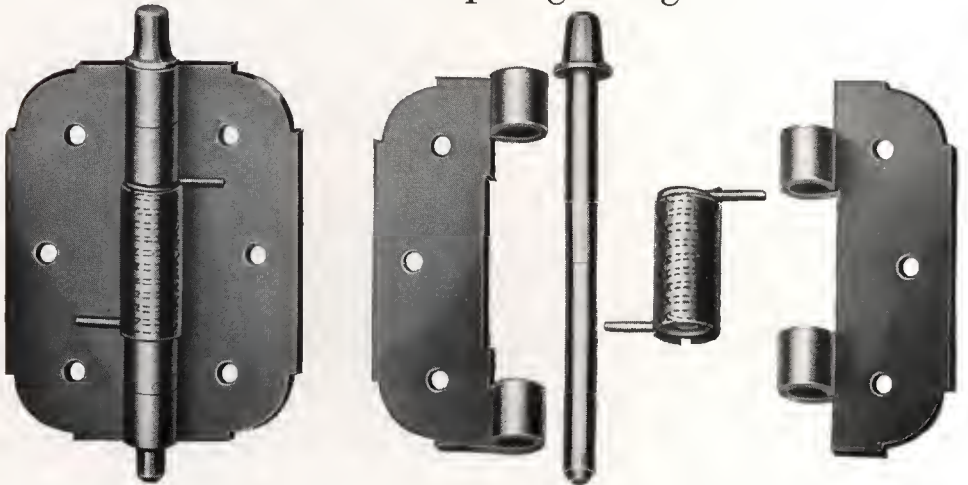
Cut one-half size of 3-inch

Can be used on doors not flush with joint by reversing one leaf for offset.
Packed one pair in a box, with screws. Sixteen dozen pairs in a case.
Any finish desired. For list of finishes, see page 210.

Weight, per dozen pairs, 2½-inch, 5¼ pounds.

Weight, per dozen pairs, 3-inch, 7½ pounds.

No. 122 Spring Hinge



Made of steel. Music wire spring. Hinge operates with or without spring.
Loose pin. Door can be taken down without removing screws.

Packed one pair in a box, with screws. Sixteen dozen pairs in a case.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen pairs, 7½ pounds.

No. 123 Heavy Steel Full Surface Spring Hinge

Button Tip



Illustration full size

Made of heavy-gauge steel.

Strong, dependable spring, fully enclosed.

Made in one size only, 3-inch.

Can be used either right- or left-hand.

An ideal spring hinge for screen or storm doors, combination screen and storm doors, and wood lavatory stall doors with wood partitions.

Packed one pair in a box, with 1 x 9 round-head screws. One hundred pairs in a case.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen pairs, 11 pounds.

No. 124 Heavy Steel Half Surface Spring Hinge

Button Tip



Cut full size

Made of heavy-gauge steel.

Strong, dependable spring, fully enclosed.

Made in one size only, 3-inch.

Can be used either right- or left-hand.

For use on screen or storm doors, combination screen and storm doors, and wood lavatory stall doors with wood partitions.

The butt part is made of an exact width to fit against jamb when mortise is cut through a standard 1/8-inch molding or casing. The butt part is attached first and door is then set in place and surface leaf attached. A labor-saving feature.

Packed one pair in a box with 1 x 9 round-head screws for surface leaf and 1 x 9 flat-head screws for mortise leaf. One hundred pairs in a case.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen pairs, 11 3/4 pounds.

BUILDERS' HARDWARE

No. 400 Ornamental Cupboard Butt

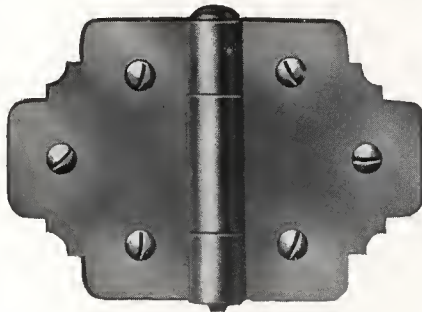


Cut full size of 1 $\frac{3}{4}$ -inch

| Size Inches | Kind of Pin | Style | Number Pairs in Box | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|-----------------|-------------|--------|---------------------|-------------------------------|---------------------|
| 1 $\frac{1}{2}$ | Oval-head | Flat | 1 dozen | 2 | 40 |
| 1 $\frac{3}{4}$ | Oval-head | Flat | 1 dozen | 2 $\frac{1}{2}$ | 32 |
| 2 | Ball tip | Flat | 1 dozen | 4 | 18 |
| 2 $\frac{1}{2}$ | Ball tip | Offset | 1 pair | 7 | 12 |

Sizes 1 $\frac{1}{2}$ -inch, 1 $\frac{3}{4}$ -inch and 2-inch are packed one pair in an envelope, with oval-head screws. (See page 4.)

No. 405 Ornamental Surface Hinge



Cut full size of 1 $\frac{1}{2}$ -inch

| Size Inches | Kind of Pin | Style | Number Pairs in Box | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|-----------------|-------------|-------|---------------------|-------------------------------|---------------------|
| 1 $\frac{1}{2}$ | Oval-head | Flat | 1 dozen | 2 | 40 |
| 1 $\frac{3}{4}$ | Oval-head | Flat | 1 dozen | 2 $\frac{3}{4}$ | 32 |
| 2 | Ball tip | Flat | 1 dozen | 4 $\frac{3}{4}$ | 18 |
| 2 $\frac{1}{2}$ | Ball tip | Flat | 1 pair | 7 $\frac{1}{2}$ | 12 |

Sizes 1 $\frac{1}{2}$ -inch, 1 $\frac{3}{4}$ -inch and 2-inch are packed one pair in an envelope, with oval-head screws; 1 $\frac{3}{4}$ -inch No. 405 Sherardized Tight Brass Pin for wash tray hinge with Sherardized screws. (See page 4.)

No. 400 Ornamental Butt



Cut full size of 3½-inch

No. 400 Ornamental Butt

Made of cold rolled steel, highly polished.

Tapped at both ends, making it reversible.

The false tip is threaded and screws into the Butt. It also has a slot for a screw-driver, making it easy to remove the tip and affording ready access to the pin.

The slot also indicates which is the bottom of the Butt—a very popular feature with carpenters and builders.

Packed one pair in a carton, with oval-head screws. Any finish desired. For list of finishes, see page 210.

Made in the following sizes:

| Size Inches | Weight per Hundred Pairs Pounds | Pairs in Case |
|----------------|---------------------------------------|------------------|
| 2 | 34 | 216 |
| 2½ | 58 | 144 |
| 3 | 89½ | 100 |
| 3½ | 138½ | 100 |
| 4 | 172 | 100 |
| 4½ | 231 | 50 |

For smaller sizes, see page 171.

No. 425 Ornamental Surface Hinge



Cut full size of 2½-inch

| Size Inches | Kind of Pin | Style | Number Pairs in Box | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|----------------|-------------|-------|---------------------------|-------------------------------------|---------------------------|
| 1½ | Oval-head | Flat | 1 dozen | 2 | 40 |
| 1¾ | Oval-head | Flat | 1 dozen | 2¾ | 32 |
| 2 | Ball tip | Flat | 1 dozen | 4¼ | 18 |
| 2½ | Ball tip | Flat | 1 pair | 7¼ | 12 |

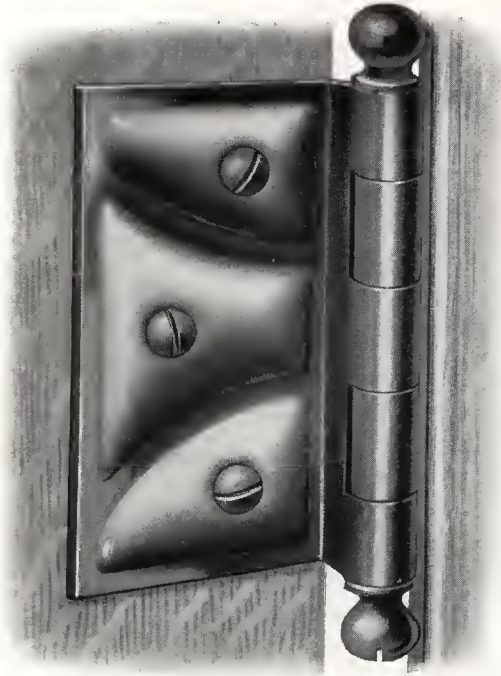
Sizes 1½-inch, 1¾-inch and 2-inch are packed one pair in an envelope, with oval-head screws. (See page 4.)



Cut full size of 1½-inch

BUILDERS' HARDWARE

No. 420 Ornamental Cupboard Butt



Cut full size of 2½-inch

| Size Inches | Kind of Pin | Style | Number Pairs in Box | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|----------------|-------------|--------|---------------------------|-------------------------------------|---------------------------|
| 1½ | Oval-head | Flat | 1 dozen | 2 | 40 |
| 1¾ | Oval-head | Flat | 1 dozen | 2½ | 32 |
| 2 | Ball tip | Flat | 1 dozen | 4 | 18 |
| 2½ | Ball tip | Offset | 1 pair | 7¼ | 12 |

Sizes 1½-inch, 1¾-inch and 2-inch are packed one pair in an envelope, with oval-head screws. (See page 4.)



Cut full size of 1½-inch

No. 420 Ornamental Butt



Cut full size of 3½-inch

No. 420 Ornamental Butt

Made of cold rolled steel, richly embossed.

Tapped at both ends, making it reversible.

The false tip is threaded and screws into the Butt. It also has a slot for a screw-driver, making it easy to remove the tip and affording ready access to the pin.

The slot also indicates which is the bottom of the Butt—a very popular feature with carpenters and builders.

Packed one pair in a carton, with oval-head screws. Any finish desired. For list of finishes, see page 210.

Made in the following sizes:

| Size Inches | Weight per Hundred Pairs | Pairs in Case |
|----------------|-----------------------------|------------------|
| 2 | 32 | 216 |
| 2½ | 59 | 144 |
| 3 | 93 | 100 |
| 3½ | 140½ | 100 |
| 4 | 176 | 100 |

For smaller sizes, see page 175.

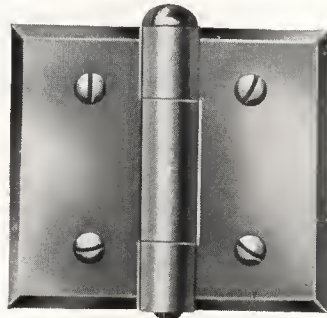
No. 455 Ornamental Surface Hinge



Cut full size of 2½-inch

| Size Inches | Kind of Pin | Style | Number Pairs in Box | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|----------------|-------------|-------|---------------------------|-------------------------------------|---------------------------|
| 1½ | Oval-head | Flat | 1 dozen | 2 | 40 |
| 1¾ | Oval-head | Flat | 1 dozen | 2¾ | 32 |
| 2 | Ball tip | Flat | 1 dozen | 4 | 18 |
| 2½ | Ball tip | Flat | 1 pair | 7½ | 12 |

Sizes 1½-inch, 1¾-inch and 2-inch are packed one pair in an envelope,
with oval-head screws. (See page 4.)



Cut full size of 1½-inch

No. 450 Ornamental Cupboard Butt



Cut full size of 2½-inch

| Size Inches | Kind of Pin | Style | Number Pairs in Box | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|----------------|-------------|--------|---------------------------|-------------------------------------|---------------------------|
| 1½ | Oval-head | Flat | 1 dozen | 2 | 40 |
| 1¾ | Oval-head | Flat | 1 dozen | 2½ | 32 |
| 2 | Ball tip | Flat | 1 dozen | 3¾ | 18 |
| 2½ | Ball tip | Offset | 1 pair | 7 | 12 |

Sizes 1½-inch, 1¾-inch and 2-inch are packed one pair in an envelope, with oval-head screws. (See page 4.)



Cut full size of
1½-inch

No. 450 Ornamental Butt



Cut full size of 3½-inch

No. 450 Ornamental Butt

Made of selected cold rolled steel, highly polished, *double-plated*, with beveled edges.

Tapped at both ends, making it reversible.

The false tip is threaded and screws into the Butt. It is also slotted for a screw-driver, making it easy to remove the tip and affording ready access to the pin.

The slot also indicates which is the bottom of the Butt—a very popular feature with carpenters and builders.

This design matches very nicely the escutcheon plates with beveled edges, giving a very harmonious effect.

One pair in a carton, each Butt wrapped separately, with oval-head screws. Any finish desired. For list of finishes, see page 210.

Made in the following sizes:

| Size Inches | Weight per Hundred Pairs Pounds | Pairs in Case |
|----------------|---------------------------------------|------------------|
| 2 | 32 | 216 |
| 2½ | 59 | 144 |
| 3 | 104 | 100 |
| 3½ | 154 | 100 |
| 4 | 197 | 100 |
| 4½ | 239½ | 50 |

For smaller sizes, see page 178.

No. 420½ Ornamental Butt



Illustration full size

A ball tip half surface butt, made without offset.

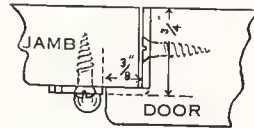
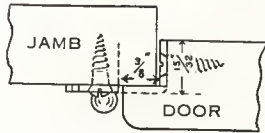
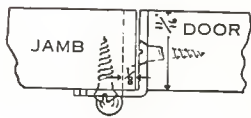
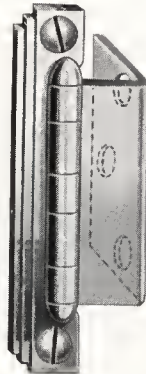
For use on combination screen and storm doors where door and casing are not flush and a full surface hinge cannot be used.

Packed one pair in a carton with oval-head screws. Any finish desired. For list of finishes, see page 210.

Made in 2½-inch size only.

Weight, per dozen pairs, 8 pounds. Twelve dozen pairs in a case.

Semi-Concealed Hinges



No. 460

No. 460A $1\frac{1}{2}$

No. 460A $\frac{3}{4}$

Made of cold rolled steel.

Packed one dozen pairs in a box, each pair in a separate envelope, with $\frac{5}{8}$ x 5 oval-head screws.

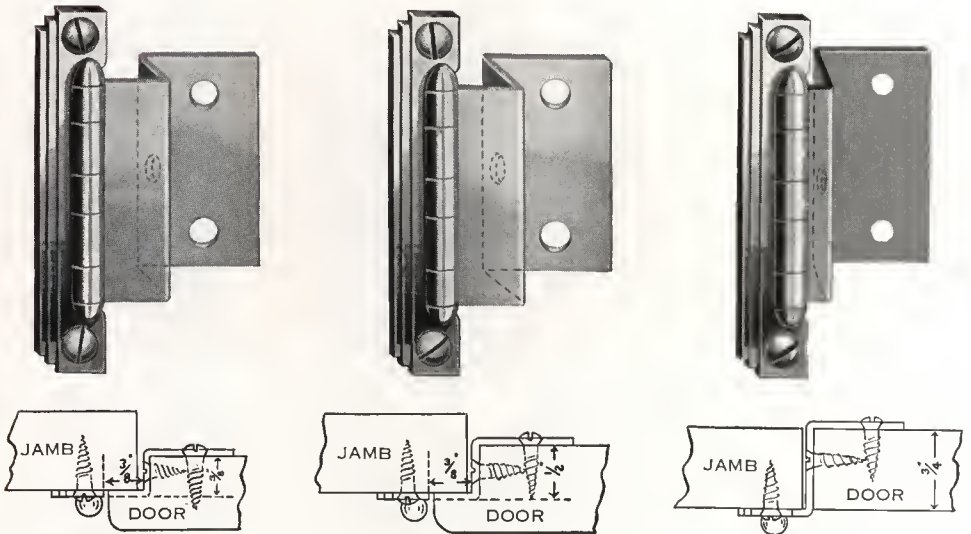
Any finish desired. For list of finishes, see page 210.

No. 460 —Weight, per dozen pairs, $1\frac{1}{2}$ pounds.

No. 460A $1\frac{1}{2}$ —Weight, per dozen pairs, $1\frac{1}{2}$ pounds.

No. 460A $\frac{3}{4}$ —Weight, per dozen pairs, $1\frac{3}{4}$ pounds.

Semi-Concealed Hinges



No. 460B $\frac{3}{8}$

No. 460C $\frac{1}{2}$

No. 460Z $\frac{3}{4}$

Also sizes Nos. 460C $\frac{5}{8}$ and 460C $\frac{3}{4}$

Made of cold rolled steel.

Packed one dozen pairs in a box, each pair in a separate envelope, with $\frac{5}{8}$ x 5 oval-head screws.

Any finish desired. For list of finishes, see page 210.

No. 460B $\frac{3}{8}$ —Weight, per dozen pairs, 1 $\frac{3}{4}$ pounds.

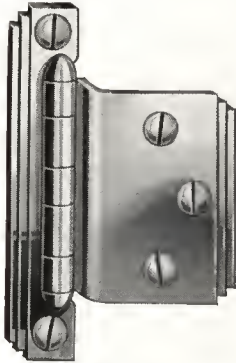
No. 460C $\frac{1}{2}$ —Weight, per dozen pairs, 1 $\frac{3}{4}$ pounds.

No. 460C $\frac{5}{8}$ —Weight, per dozen pairs, 2 pounds.

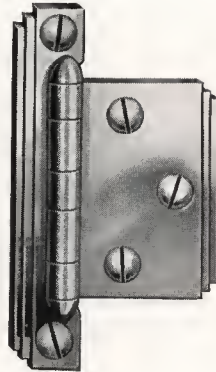
No. 460C $\frac{3}{4}$ —Weight, per dozen pairs, 2 pounds.

No. 460Z $\frac{3}{4}$ —Weight, per dozen pairs, 1 $\frac{3}{4}$ pounds.

Ornamental Hinges



No. 460R



No. 460S

No. 460R Hinges are made for use with doors having $\frac{3}{8}$ -inch offset.

No. 460S Hinges are made for use with flush doors.

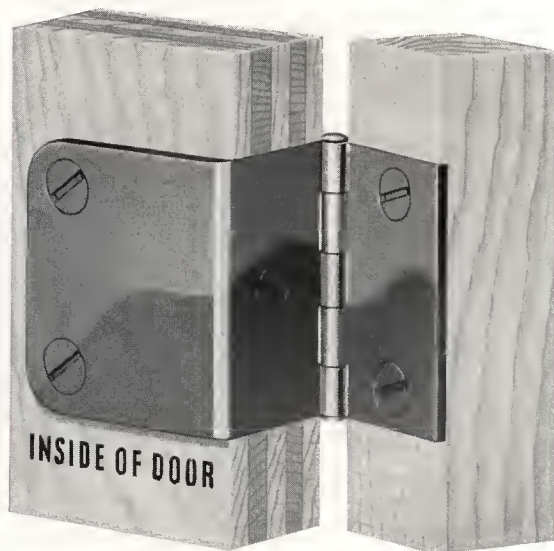
Made of cold rolled steel.

Packed one dozen pairs in a box, each pair in a separate envelope, with $\frac{5}{8}$ x 5 oval-head screws.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen pairs, $1\frac{1}{2}$ pounds.

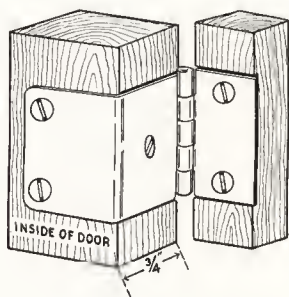
Semi-Concealed Hinges



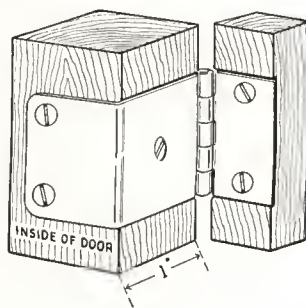
Made of cold rolled steel. Loose pin.

Packed one pair in an envelope, with $\frac{5}{8}$ x 6 flat-head screws. One dozen pairs in a box.

Any finish desired. For list of finishes, see page 210.



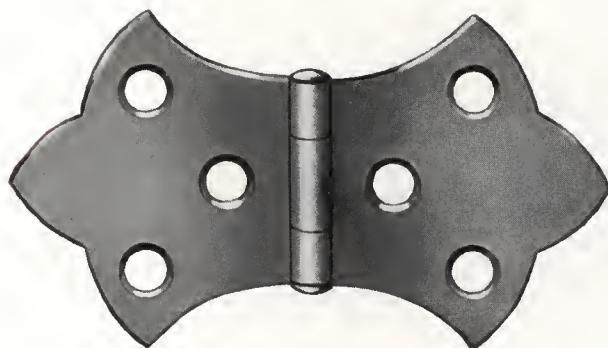
No. 471— $\frac{3}{4}$ -inch



No. 471—1-inch

Weight, per dozen pairs, 2 pounds.

No. 475 Ornamental Hinge



Cut full size

Made in 1-inch size only.

Packed one dozen pairs in a box, with oval-head screws. Thirty-two dozen pairs in a case.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen pairs, 1½ pounds.

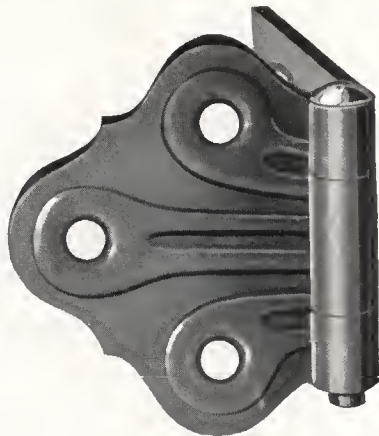
No. 485 Ornamental Hinge



Cut full size of 1¼-inch

Made of cold rolled steel. Embossed leaves. Smooth knuckles.
Size 1¼-inch also furnished in solid brass.
Length of joint, 1¼ inches and 1½ inches.
Packed one dozen pairs in a box, each pair in a separate envelope,
with 5/8 x 5 oval-head screws. Thirty-two dozen pairs in a case.
Any finish desired. For list of finishes, see page 210.
Weight, per dozen, 1¼-inch, 2 pounds; 1½-inch, 2¾ pounds.

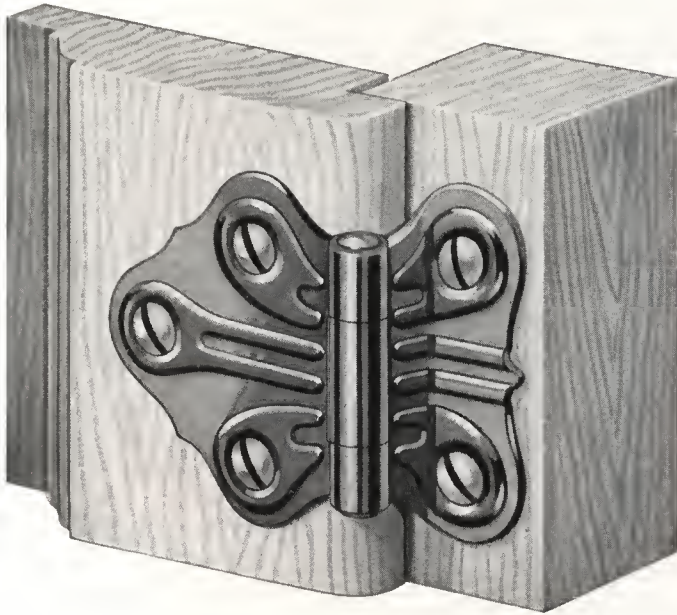
No. 480 Ornamental Butt



Cut full size

This is the same design as the No. 485 Ornamental Hinge illustrated above. It is made in 1½-inch size only.
Packed one dozen pairs in a box, each pair in a separate envelope,
with 5/8 x 5 oval-head screws. Thirty-two dozen pairs in a case.
Any finish desired. For list of finishes, see page 210.
Weight, per dozen, 2 pounds.

No. 486 Ornamental Hinge



Furnished in steel or solid brass.

Made with $\frac{3}{8}$ -inch offset for use on rabbeted cupboard doors.

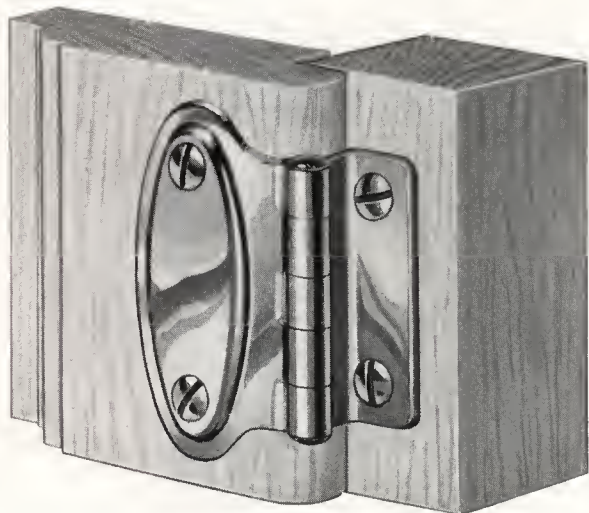
Packed with oval-head screws, one pair in an envelope, one dozen pairs in a carton. Any finish desired. For list of finishes, see page 210.

Size $\frac{1}{4}$ -inch only.

Weight, per dozen pairs, $1\frac{1}{2}$ pounds.

No. 487 Ornamental Hinge

Steel or Solid Brass



Made with $\frac{3}{8}$ -inch offset for use on rabbeted cupboard doors.

Packed with oval-head screws, one pair in an envelope, one dozen pairs in a carton. Any finish desired. For list of finishes, see page 210.

Size $1\frac{1}{2}$ -inch only.

Weight, per dozen pairs, $1\frac{3}{4}$ pounds.

No. 456 Ornamental Hinge



Made with $\frac{3}{8}$ -inch offset for use on rabbeted cupboard doors.

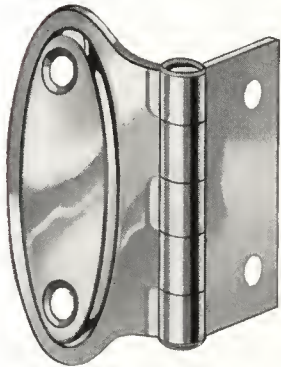
Packed with oval-head screws, one pair in an envelope, one dozen pairs in a carton. Any finish desired. For list of finishes, see page 210.

Size $1\frac{1}{2}$ -inch only.

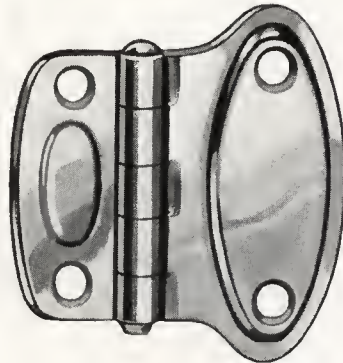
Weight, per dozen pairs, $1\frac{3}{4}$ pounds.

Ornamental Butts and Hinges

Steel or Solid Brass



No. 490 Half Surface Butt
Cut full size



No. 495 Full Surface Hinge
Cut full size

No. 490 is a half-surface Butt and is made with one leaf to mortise.

No. 495 is a full-surface Hinge.

Deeply embossed. Five-knuckle.

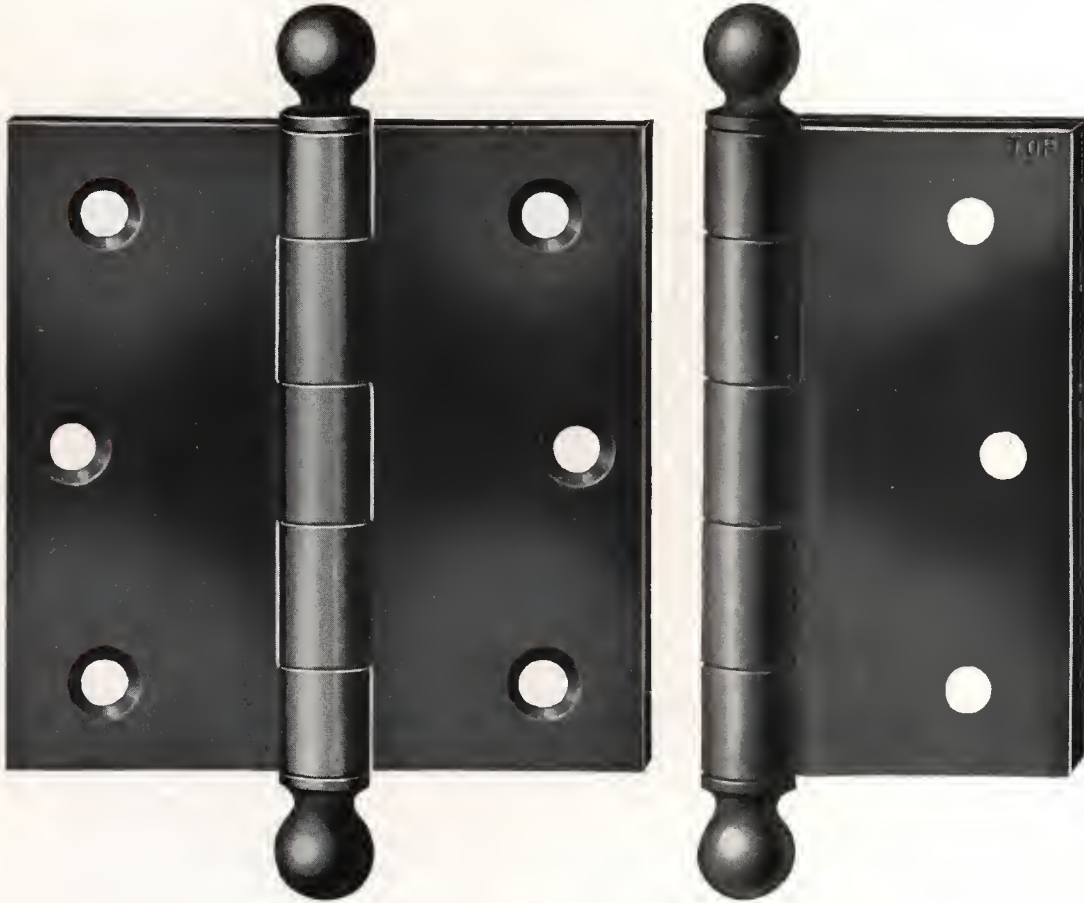
Packed one pair in an envelope, with oval-head screws. One dozen pairs in a box.

Any finish desired. For list of finishes, see page 210.

No. 490, weight, per dozen pairs, $1\frac{3}{4}$ pounds.

No. 495, weight, per dozen pairs, $1\frac{3}{4}$ pounds.

No. 500 Ball Tip Butt



Cut full size of 3½ x 3½-inch

| Size Inches | Weight per Hundred Pairs Pounds | Pairs in Case | Size Inches | Weight per Hundred Pairs Pounds | Pairs in Case |
|----------------|---------------------------------------|------------------|----------------|---------------------------------------|------------------|
| 2 x 2 | 36 | 100 | 4 x 4 | 185 | 100 |
| 2½ x 2½ | 57 | 100 | 4 x 5 | 200 | 50 |
| 3 x 3 | 87 | 100 | 4 x 6 | 222 | 50 |
| 3½ x 3½ | 137 | 100 | 4½ x 4½ | 232 | 50 |
| 3½ x 5 | 180 | 50 | 5 x 5 | 294 | 50 |

The 2 x 2-inch bright steel, Japanned and plated Butts are packed one dozen pairs in a carton, each pair in a separate envelope, with screws. (See page 4.) All other sizes are packed one pair in a box, each plated Butt wrapped separately, with screws. The word "Top" is stamped on upper end of leaf. Made to conform to specifications of U. S. Bureau of Standards. For list of finishes, see page 210.

Wrought Steel Template Butts



3 1/2 x 3 1/2-inch



4 x 4-inch

For use on interior hollow metal doors or wood doors with pressed steel jambs.

Screw-holes placed accurately so they will match perfectly screw-holes drilled to similar template in metal doors and jambs.

Packed one pair in a box. Any finish desired. For list of finishes, see page 210.

Also finished in Prime Coat for painting.

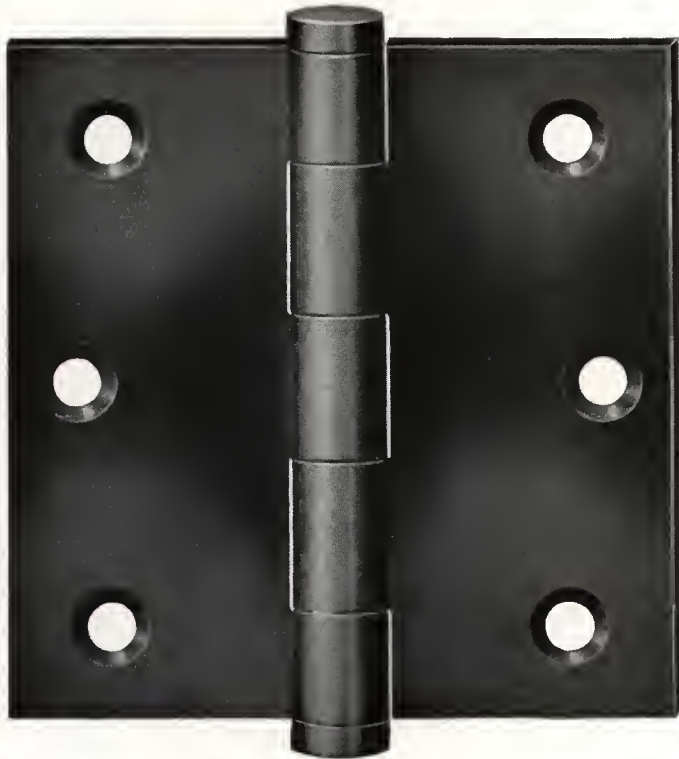
Made in the following sizes:

| Size Inches | Shipping Weight per Hundred Pairs Pounds | Pairs in Case |
|----------------|---|------------------|
| 2 1/2 x 2 1/2 | 57 | 100 |
| 3 x 3 | 87 | 100 |
| 3 1/2 x 3 1/2 | 137 | 100 |
| 4 x 4 | 185 | 100 |
| 4 1/2 x 4 1/2 | 232 | 50 |
| 5 x 5 | 294 | 50 |

No. 500T packed with machine screws.

No. 500T 1/2 packed with half machine screws and half wood screws. Made to conform to specifications of U. S. Bureau of Standards.

No. 502 Button Tip Butt



Cut full size of $3\frac{1}{2}$ x $3\frac{1}{2}$ -inch

| Size Inches | Weight per Hundred Pairs Pounds | Pairs in Case |
|---------------------------------|---------------------------------------|------------------|
| 2 x 2 | 28 | 100 |
| $2\frac{1}{2}$ x $2\frac{1}{2}$ | $47\frac{1}{2}$ | 100 |
| 3 x 3 | 78 | 100 |
| $3\frac{1}{2}$ x $3\frac{1}{2}$ | 124 | 100 |
| $3\frac{1}{2}$ x 5 | 158 | 50 |
| 4 x 4 | 168 | 100 |
| 4 x 5 | 200 | 50 |
| 4 x 6 | 230 | 50 |
| $4\frac{1}{2}$ x $4\frac{1}{2}$ | 210 | 50 |

All sizes are packed one pair in a box, each plated Butt wrapped separately, with screws. The word "Top" is stamped on upper end of leaf. Also furnished in Prime Coat cut for painting. Made to conform to specifications of U. S. Bureau of Standards. Any finish desired. For list of finishes, see page 210.

No. 504 Reversible Butt



Cut full size of $3\frac{1}{2}$ x $3\frac{1}{2}$ -inch

| Size Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|---------------------------------|-------------------------------------|------------------------|
| 2 x 2 | $3\frac{1}{2}$ | 18 |
| $2\frac{1}{2}$ x $2\frac{1}{2}$ | $5\frac{1}{2}$ | 16 |
| 3 x $2\frac{1}{2}$ | 8 | 16 |
| 3 x 3 | $8\frac{3}{4}$ | 16 |
| $3\frac{1}{2}$ x 3 | $12\frac{1}{2}$ | 12 |
| $3\frac{1}{2}$ x $3\frac{1}{2}$ | 14 | 12 |
| 4 x 4 | $16\frac{3}{4}$ | 12 |
| $4\frac{1}{2}$ x $4\frac{1}{2}$ | $23\frac{1}{4}$ | 6 |

These Butts are bright steel. Also furnished Sherardized, with steel or brass pin. The 2 x 2-inch Butts are packed one dozen pairs in a box, each pair in a separate envelope, with screws. (See page 4.) All other sizes are packed one pair in a box, with screws.

No. 560 Wrought Steel Surface Butt
Not Swaged



Actual size of 3½ x 3½-inch

Made of cold rolled steel. For use on iron gates, shutters and cell doors. Made with fast pin and without screw-holes.

Can be furnished swaged when ordered.

Bright steel finish.

| Size Inches | Weight per Hundred Pairs Pounds | Pairs in Case |
|----------------|---------------------------------------|------------------|
| 2½ x 2½ | 52 | 100 |
| 3 x 3 | 82 | 100 |
| 3½ x 3½ | 132 | 100 |
| 4 x 4 | 176½ | 100 |
| 4½ x 4½ | 220 | 100 |

BUILDERS' HARDWARE

No. 505 Broad Butt Tight Pin



Cut full size of $3\frac{1}{2}$ x $3\frac{1}{2}$ -inch

| Size Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|-----------------------------------|-------------------------------------|------------------------|
| 2 x 2 | 3 $\frac{1}{4}$ | 18 |
| 2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ | 5 $\frac{3}{4}$ | 16 |
| 3 x 2 $\frac{1}{2}$ | 8 | 16 |
| 3 x 3 | 9 | 16 |
| 3 $\frac{1}{2}$ x 3 | 12 $\frac{1}{2}$ | 12 |
| 3 $\frac{1}{2}$ x 3 $\frac{1}{2}$ | 13 | 12 |
| 4 x 4 | 17 | 12 |
| 4 $\frac{1}{2}$ x 4 $\frac{1}{2}$ | 24 $\frac{3}{4}$ | 6 |

These Butts can be furnished Sherardized, with steel or brass pin, or any finish desired. (See page 210.) The 3 x 2 $\frac{1}{2}$ -inch and 3 $\frac{1}{2}$ x 3-inch Butts cannot be furnished in plated finishes. The 2 x 2-inch Butts are packed one dozen pairs in a box, each pair in a separate envelope, with screws. (See page 4.) All other sizes are packed one pair in a box, with screws.

No. 508 Light Narrow Butt

Loose Pin



Cut full size of 2½-inch

| Length Inches | Width Open Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|---------------|-------------------|-------------------------------|---------------------|
| 1 | 1 | ¾ | 50 |
| 1¼ | 1⅛ | 1 | 50 |
| 1½ | 1⅜ | 1¾ | 50 |
| 1¾ | 1⅝ | 2¼ | 50 |
| 2 | 1⅞ | 2½ | 25 |
| 2¼ | 1⅞ | 2¾ | 25 |
| 2½ | 1⅞ | 3 | 25 |
| 3 | 2 | 4½ | 25 |

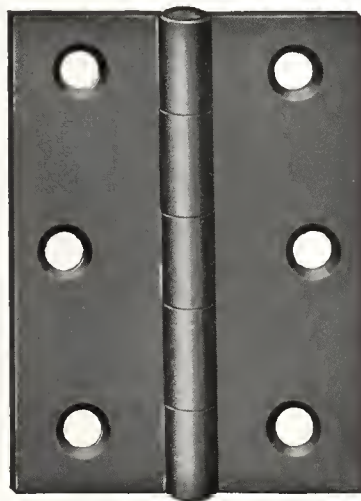
These Butts are packed one dozen pairs in a box, each pair in a separate envelope, with screws. (See page 4.) Any finish desired. For list of finishes, see page 210.

Also furnished packed without screws or in bulk without screws.

No. 518 Light Narrow Butt

Tight Pin

| Length Inches | Width Open Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|---------------|-------------------|-------------------------------|---------------------|
| 1 | 1 | ¾ | 50 |
| 1¼ | 1⅛ | 1 | 50 |
| 1½ | 1⅜ | 1¾ | 50 |
| 1¾ | 1⅝ | 2¼ | 50 |
| 2 | 1⅞ | 2½ | 25 |
| 2¼ | 1⅞ | 2¾ | 25 |
| 2½ | 1⅞ | 3 | 25 |
| 3 | 2 | 4½ | 25 |



Cut full size of 2½-inch

These Butts are packed one dozen pairs in a box, each pair in a separate envelope, with screws. (See page 4.) Any finish desired. Size 2-inch and larger can be furnished Sherardized with brass pin. For list of finishes, see page 210.

Also furnished packed without screws or in bulk without screws.

No. 528 Light Narrow Butt
Ball Tip



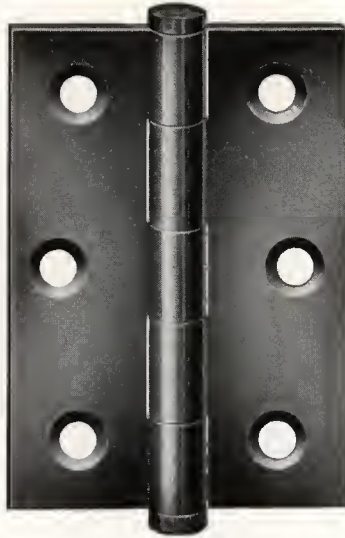
Cut full size of 2½-inch

| Length Inches | Width Open Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|------------------|----------------------|-------------------------------------|------------------------|
| 1½ | 1⅞ | 1½ | 25 |
| 2 | 1⅞ | 2½ | 25 |
| 2¼ | 1⅞ | 2¾ | 25 |
| 2½ | 1⅞ | 3 | 25 |
| 3 | 2 | 4¾ | 25 |

All sizes of these Butts are packed one dozen pairs in a box, each pair in a separate envelope, with screws. (See page 4.) Any finish desired. For list of finishes, see page 210.

No. 529 Light Narrow Butt

Button Tip



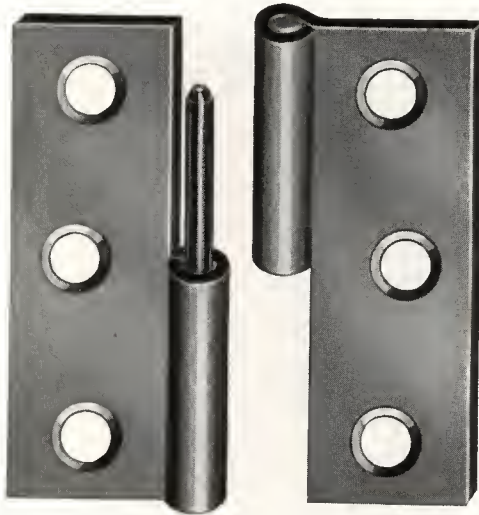
Cut full size of 2½-inch

| Length Inches | Width Open Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|------------------|----------------------|-------------------------------------|------------------------|
| 2 | 1 $\frac{3}{16}$ | 2½ | 25 |
| 2¼ | 1 $\frac{11}{16}$ | 2¾ | 25 |
| 2½ | 1 $\frac{11}{16}$ | 3 | 25 |

All sizes of these Butts are packed one dozen pairs in a box, each pair in a separate envelope, with screws. (See page 4.)

Any finish desired. Also furnished in Prime Coat cut for painting. For list of finishes, see page 210.

No. 506 Loose Joint Broad Butt



Left-hand

Cut full size of $2\frac{1}{2}$ x $2\frac{1}{2}$ -inch

| Size Inches | Number of Pairs in Box | Weight per Dozen Pairs Pounds |
|---------------------------------|------------------------------|-------------------------------------|
| 2 x 2 | 12 | 3 $\frac{1}{4}$ |
| $2\frac{1}{2}$ x $2\frac{1}{2}$ | 1 | 5 $\frac{1}{2}$ |
| 3 x 3 | 1 | 8 $\frac{3}{4}$ |
| $3\frac{1}{2}$ x $3\frac{1}{2}$ | 1 | 13 |

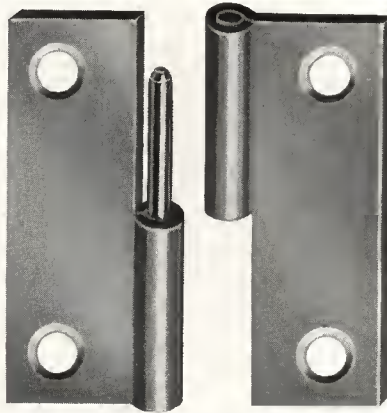
The pin in one Butt of each pair is longer than in the other one, making it easier to hang.

Made in both right- and left-hand.

Right- and left-hand packed separately.

Furnished in Bright Steel, Japan, Cadmium Steel Pin and Galvanized Brass Pin.

No. 538 Narrow Loose Joint Butt



Left-hand
Cut full size of 2-inch

This Butt is used quite extensively for hanging full-length screens.

Made in both right- and left-hand in 2-inch and 2½-inch sizes only. Right- and left-hand packed separately.

The pin in one Butt of each pair is longer than in the other one, making it easier to hang screen.

Furnished in Bright Steel, Japan and Cadmium.

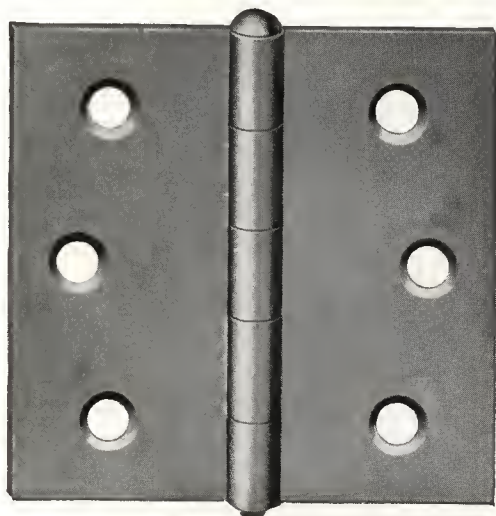
Bright Steel packed one dozen pairs in a box, each pair in an envelope with screws, or in bulk without screws if desired.

Japanned and Cadmium packed one dozen pairs in a box, with screws only.

2-inch, weight, per dozen pairs, with screws, 2½ pounds.

2½-inch, weight, per dozen pairs, with screws, 3 pounds.

No. 608 Light Reversible Butt



Cut full size of $2\frac{1}{2}$ x $2\frac{1}{2}$ -inch

| Size Open Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|-----------------------------------|-------------------------------------|------------------------|
| 2 x 2 | 2 $\frac{3}{4}$ | 25 |
| 2 $\frac{1}{2}$ x 2 | 3 $\frac{1}{4}$ | 25 |
| 2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ | 3 $\frac{3}{4}$ | 25 |
| 3 x 2 $\frac{1}{2}$ | 5 $\frac{1}{4}$ | 25 |
| 3 x 3 | 6 | 25 |

All sizes of these Butts are packed one dozen pairs in a box, each pair in a separate envelope, with screws. (See page 4.) Any finish desired. For list of finishes, see page 210.

No. 628 Light Ball Tip Butt



Cut full size of 2½ x 2½-inch

| Size Open Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|---------------------|-------------------------------------|------------------------|
| 2 x 2 | 2¾ | 25 |
| 2½ x 2 | 3¼ | 25 |
| 2½ x 2½ | 4 | 25 |
| 3 x 2½ | 5½ | 25 |
| 3 x 3 | 6¼ | 25 |

All sizes of these Butts are packed one dozen pairs in a box, each pair in a separate envelope, with screws. (See page 4.) Any finish desired. For list of finishes, see page 210.

No. 629 Light Button Tip Butt

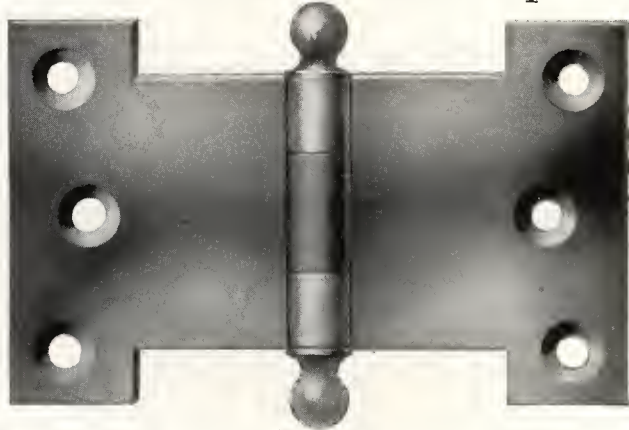


Cut full size of 2½ x 2½-inch

| Size Open Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|---------------------|-------------------------------------|------------------------|
| 2 x 2 | 2¾ | 25 |
| 2½ x 2 | 3¼ | 25 |
| 2½ x 2½ | 4 | 25 |

All sizes of these Butts are packed one dozen pairs in a box, each pair in a separate envelope, with screws. (See page 4.) Any finish desired. Also furnished in Prime Coat cut for painting. For list of finishes, see page 210.

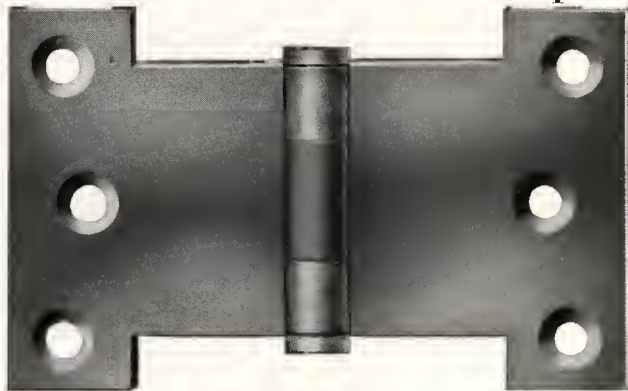
No. 650 Parliament Ball Tip Butt



| Size Open Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|---------------------|-------------------------------------|------------------------|
| 3 | 5¼ | 24 |
| 3½ | 7¾ | 24 |
| 4 | 8¼ | 24 |
| 4½ | 8¾ | 24 |
| 5 | 10½ | 24 |

Especially adapted for hanging French windows. Packed one pair in a box, with screws. Any finish desired. For list of finishes, see page 210.

No. 652 Parliament Button Tip Butt

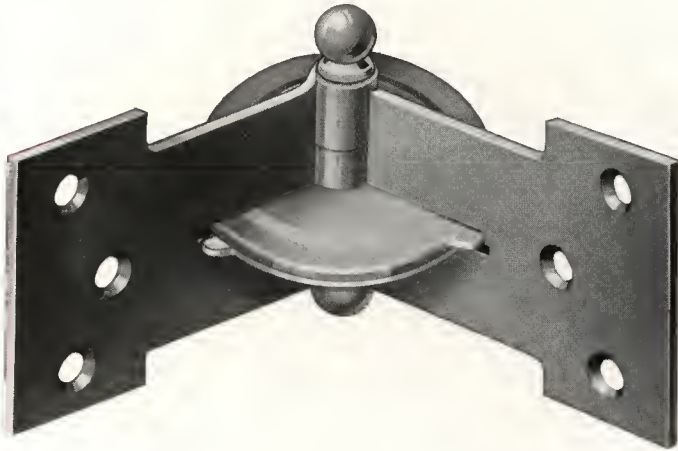


| Size Open Inches | Weight per Dozen Pairs Pounds | Dozen Pairs in Case |
|---------------------|-------------------------------------|------------------------|
| 3½ | 7¾ | 24 |
| 4 | 8¼ | 24 |
| 4½ | 8¾ | 24 |
| 5 | 10½ | 24 |

Especially adapted for hanging French windows. Packed one pair in a box, with screws. Any finish desired. Also furnished in Prime Coat cut for painting. For list of finishes, see page 210.

No. 655 Friction Parliament Butt

(Patented)



Made especially for use on windows swinging in.

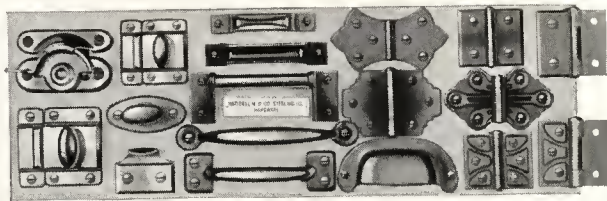
One Friction Butt together with one 4½-inch Parliament Butt required on each window.

Made in 4½-inch size only.

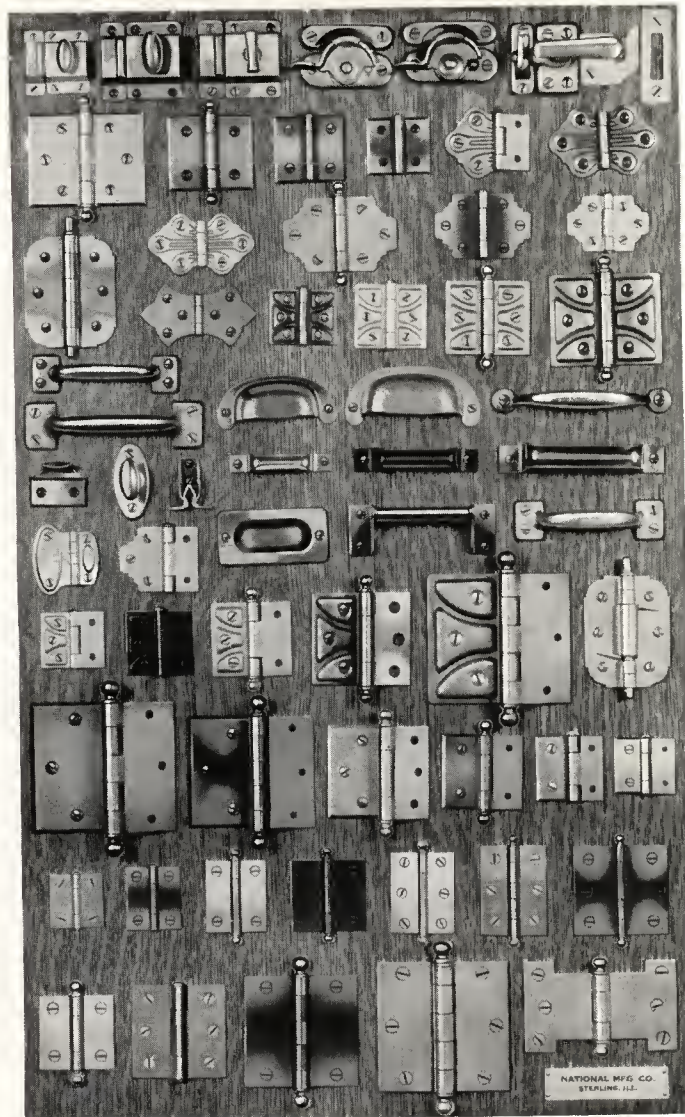
Packed one pair in a box, with screws. A pair consists of one Friction Butt and one regular Parliament Butt.

Any finish desired. For list of finishes, see page 210.

Weight, per dozen pairs, 10¾ pounds.



No. 1 Sample Board. Size, 15 x 5 inches. Weight, 2 pounds.



No. 2 Sample Board. Size, 18 x 30 inches. Weight, 24½ pounds. Packed in a wooden box.

BUILDERS' HARDWARE

Comparative Symbols of Hardware Finishes

| National | Description | U. S. No. | Russell & Erwin Mfg. Co. | Sargent & Co. | Yale & Towne Mfg. Co. | P. & F. Corbin | Lockwood | Penn | Reading | Sager |
|----------------------|--|-----------|--------------------------|---------------|-----------------------|----------------|----------|-------|---------|-------|
| Jap. | Bright Japanned | US1B | ... | ... | ... | J | J | J | J | 010 |
| D. B. Jap. | Dead Black Japanned | US1D | ... | J | ... | D | JF | ... | DJ | 0D10 |
| Sher. | Sherardized | US2S | ... | ... | ... | ... | ... | ... | ... | ... |
| Cad. | Cadmium (Lacquered) | US2C | ... | ... | ... | ... | ... | ... | ... | ... |
| Br. Brs. | Bright Brass | US3 | 10 | B | AZ10 | A | 13½ | PB | 31 | A30 |
| Dull B. | Dull Brass | US4 | 9 | OB | AY22 | EA | 13 | DB | 37 | D30 |
| Ant. B. | Antique Brass | ... | 9½ | EB | AZ17 | HA | 50 | ABM | 34 | 6 |
| Galv. | Hot Galvanized | US2H | ... | ... | ... | ... | ... | ... | ... | ... |
| A. B. S. B. N. S. | Antique Brass Sand Blast (Not shaded) | US6 | 09C | RD | AX28 | SKA | 51 | BS7L | 33 | S31 |
| A. C. | Antique Copper | US8 | 7½ | AB | CZ27 | R | 7½ | AC | 24 | A42 |
| A. C. S. B. | Antique Copper Sand Blast | ... | 07½ | RB | CX17 | SR | 17½ | ACS | 25 | 28 |
| A. C. S. B. N. S. | Antique Copper Sand Blast (Not shaded) | ... | 07C | RL | CX22 | SER | 18 | ACSL | 23 | 28½ |
| Br. C. | Bright Copper | ... | 7B | ... | CZ10 | ER | 30 | PC | 15 | 8¾ |
| Brze. | Bronze | US9 | 11 | P | BZ10 | B or N | 1 | PBZ | 1 | A20 |
| Dull Brze. | Dull Bronze | US10 | 11D | OP | BY22 | DB | 34 | DBZ | 7 | D20 |
| Nick. | Nickel | US14 | 4 | N | NZ10 | E | 5 | PN | 80 | A50 |
| Dull Nick. | Dull Nickel | US15 | 14 | LN | NY10 | DE | 90 | DN | 77 | D50 |
| Nick S. B. | Nickel Sand Blast | US16 | 04 | RN | NX10 | SE | 5S | NS | 78 | S51 |
| E. B. B. | Electro Bower Barff | US19 | 47 | BN | FX90 | KF | 6 | IRP | 87½ | I8 |
| Lt. Stat. Brze. | Light Statuary Bronze | US20 | 2 | A | BY65 | KB | 38 | PBZ4 | 2 | D29 |
| Dark Stat. Brze. | Dark Statuary Bronze | US20A | 2D | A3B | ... | LB | 2 | BBZ6 | 2 | DD29 |
| Stat. Brze. S. B. | Statuary Bronze Sand Blast | US21 | 02 | RA | BX12 | SKB | 38S | BZS4L | 2½ | S29 |
| O. I. | Old Iron | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| P. C. | Prime Coat | USP | ... | ... | ... | ... | ... | ... | ... | ... |
| Chrom. | Chromium | US26 | ... | ... | ... | ... | ... | ... | ... | ... |
| Dull Chrom. | Dull Chromium | US26D | ... | ... | ... | ... | ... | ... | ... | ... |

Finishes, with Their Abbreviations

The following is a list of regular finishes carried in stock:

| Finish | Abbreviation |
|---|-------------------|
| Bright Steel | Brt. S. |
| Sherardized | Sher. |
| Cadmium | Cad. |
| Hot Galvanized | Galv. |
| Prime Coat | P. C. |
| Japanned | Jap. |
| Antique Copper | A. C. |
| Dull Brass | Dull B. |
| Antique Brass Sand-Blast Not Shaded | A. B. S. B. N. S. |
| Dull Nickel | Dull Nick. |
| Nickel Sand-Blast | Nick. S. B. |
| Nickel | Nick. |
| Chromium | Chrom. |
| Dull Chromium | Dull Chrom. |

The following special finishes can be furnished on short notice:

| | |
|--|-------------------|
| Dead Black Japan | D. B. Jap. |
| Copper Washed | Cop. W. |
| Dull Antique Copper | Dull A. C. |
| Dull Copper | Dull C. |
| Bright Copper | Brt. C. |
| Antique Brass | Ant. B. |
| Dull Antique Brass | Dull A. B. |
| Bronze | Brze. |
| Statuary Bronze | Stat. Brze. |
| Statuary Bronze Sand-Blast | Stat. Brze. S. B. |
| Antique Copper Sand-Blast | A. C. S. B. |
| Antique Copper Sand-Blast Not Shaded | A. C. S. B. N. S. |
| Dull Brass Sand-Blast | Dull B. S. B. |
| Electro Bower Barff | E. B. B. |
| Bright Brass | Brt. Brs. |
| Old Iron | O. I. |

The finish formerly called "Dull A. B. S. B." has been changed to "A. B. S. B. N. S." as the name more clearly describes this finish.

"Brush Brass" and "Lemon Brass" finishes mean the same as "Dull Brass." "Old Brass" is the same as "Antique Brass."

All Sherardized plated goods are stamped with the letters "Sher." to indicate that they are Sherardized before being plated.

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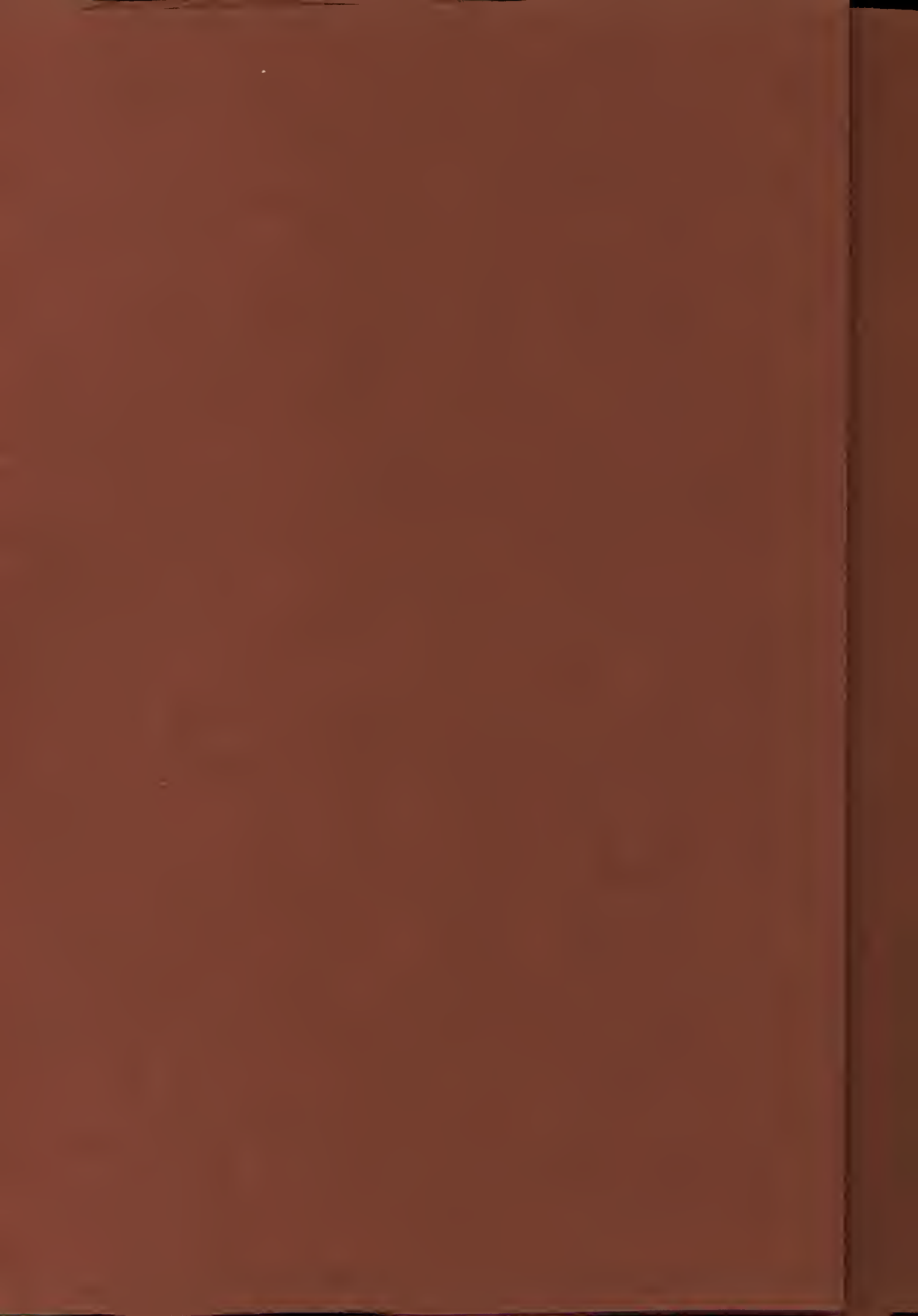
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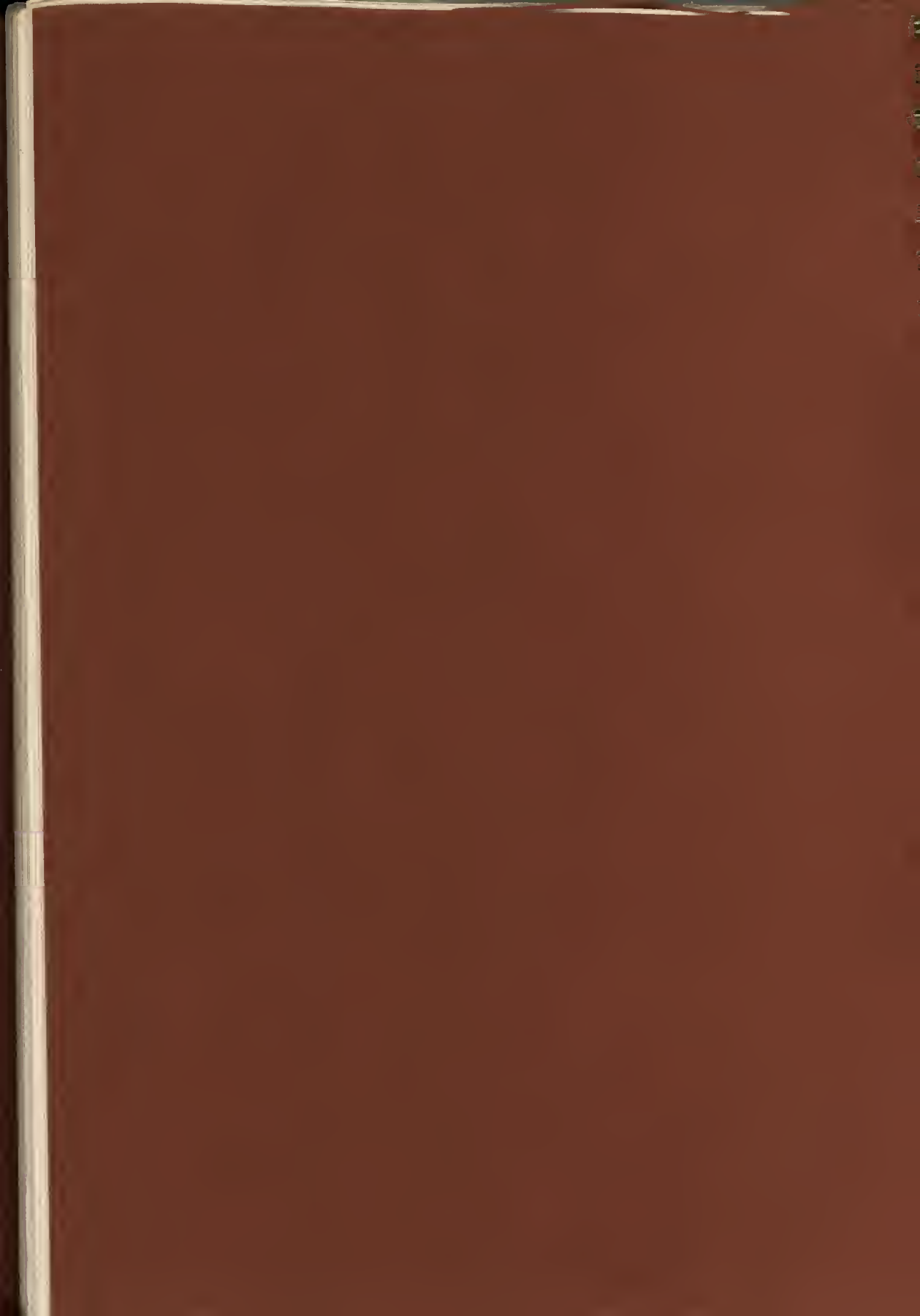
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